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PERSONAL.

Lieut. Edwin R. Stuart, Corps of Engineers, U. S. Army, has been ordered to duty at Willett's Point, N. Y.

Mr. A. R. Starkey, contractor, of Marquette, Mich., has been appointed Superintendent of the water-works at St. Paul, Minn.

Mr. J. W. O'Neil has been appointed Receiver of the Topeka Water Co., Topeka, Kan., to succeed Mr. Elias Summerfield, resigned.

Mr. Charles E. Phelps, Jr., of Walbrook, Md., has been appointed Chief Engineer of the Electrical Subway Commission, Baltimore, Md.

Mr. Frank A. Tyson, President of the Water Board of Reading, Pa., has resigned, and Mr. Geo. H. Felix has been appointed to succeed him.

Col. Robert Carritt has been appointed Chief Engineer of the Mississippi Valley Ry., with headquarters at 806 Chestnut St., St. Louis, Mo.

Mr. J. B. Stevens, electrical engineer, with the L. I. Fletcher Co., Boston, Mass., has assumed the management of the Cumberland Illuminating Co., Great Falls, Me.

Mr. Seaton M. Scott, M. Am. Soc. M. E., consulting mechanical engineer, of New York city, has removed his offices from 123 Liberty St. to the Bowling Green Offices, 11 Broadway.

Mr. Charles E. White, electrical engineer, of Philadelphia, Pa., has been appointed Manager of the Municipal Light Board, Wakefield, Mass., in charge of the electric light plant.

Mr. W. I. Cooke has been appointed Superintendent of Locomotive Service of the Chicago & Eastern Illinois R. R., with headquarters at Danville, Ill., to succeed Mr. H. A. Dewey.

Messrs. Wm. M. Given and Arthur C. Aldrich have formed a partnership, with the firm name of Given & Aldrich, to conduct a general engineering business, with headquarters in Room 402, Chalifoux Bldg., Birmingham, Ala.

Mr. George H. Campbell, Terminal Agent of the Baltimore & Ohio R. R., at Baltimore, Md., has, in addition to his present duties, been appointed Inspector of Stations and Terminals over the whole line, reporting to the General Superintendents in their respective territories.

Mr. Gustav R. Tuska, Assoc. M. Am. Soc. C. E., Chief Engineer of the Panama R. R. Co., with headquarters in New York city, has also been appointed Consulting Engineer to the American Representative of the Russian Government in connection with the Chinese Railway System.

Col. George E. Waring, Jr., M. Inst. C. E., consulting engineer, of Newport, R. I., and New York city, formerly Commissioner of Street Cleaning of the latter city, has been appointed to visit Cuba to investigate the sanitary condition of the different towns where United States troops are to be located and to report what should be done to improve the same.

Mr. Alfred Lovell, formerly Engineer of Tests of the Northern Pacific Ry., has been appointed Assistant Superintendent of Motive Power, with office at St. Paul, Minn. He will have charge of the routine business of the Motive Power Department during the absence of the Superintendent of Motive Power, and will also attend to special work at the shops and on the line.

Mr. George E. Gifford, M. Am. Soc. C. E., Eastern Representative of the King Bridge Co., Cleveland, O., with headquarters in New York city, has resigned to accept the position of Treasurer of the R. H. Hood Co., 220 Broadway, New York, general contractors. He has been connected with the former company for over 10 years, for the last four being in charge of the New York office.

Mr. Martin Schenck, the Democratic nominee for State Engineer and Surveyor of New York, was born at Palatine Bridge, Montgomery county, N. Y., in 1845, and graduated from the Engineering Department of Union College, Schenectady, N. Y., in 1869. He was engaged in railway surveys and construction until 1883, when he entered the office of the State Engineer, Mr. Elnathan Sweet. He built the dikes and dredged the Hudson River between Albany and Troy, and also was engaged on the Champlain and Erie Canals. In 1891 he was elected State Engineer and served one term, and he has since then been City Engineer of Troy.

Mr. Harry H. Rousseau, Jun. Am. Soc. C. E., Assistant Engineer of the Pittsburg Bridge Co., Pittsburg, Pa., stood first on the list of candidates who passed the recent examination in Washington for the position of Civil Engineer in the United States Navy. Only 18 out of the 50 candidates who took the examination passed. Mr. Rousseau is a graduate of the Rensselaer Polytechnic Institute, Troy, N. Y., in the class of 1891.

Mr. E. G. Rosencrans and Mr. A. D. Mott have formed a partnership, under the firm name of Rosencrans & Mott, with headquarters at 1236 Marquette Bldg., Chicago, and will make a specialty of structural and bridge engineering. Mr. Rosencrans has been for a long time the engineer for Green & Wickes, architects, of Buffalo, N. Y., and Mr. Mott has been with Messrs. Purdy & Henderson, of New York city, for several years.

Mr. A. B. Coalter, of the Engineering Department of the Chesapeake & Ohio Ry., has accepted an offer to go to China in the interests of the Brice Syndicate, which will build a system of railways in that country. He will accompany Mr. William Barclay Parsons, M. Am. Soc. C. E., of New York city, whose going was noted last week, and Mr. Harry Frazier, M. Am. Soc. C. E., Chief Engineer of the Chesapeake & Ohio Ry., with headquarters in Richmond, Va. Mr. Coulter will leave for Hong Kong this week by way of Vancouver, B. C. Upon his return, in about four months, he expects to resume his position with the Chesapeake & Ohio Ry. Co., which has granted him a furlough.

Mr. Edward A. Bond, the Republican nominee for State Engineer and Surveyor of New York, was born in Dexter, Mich., April 22, 1849, and in 1867 begun work for the Delaware, Lackawanna & Western R. R., with which company he remained until 1870, when in that year he was made Assistant to the Chief Engineer of the Utica & Black River R. R. In 1875 he became Chief Engineer and had charge of the building of the lines from Lowville to Clayton and Ogdensburg. In 1886 he was appointed Chief Engineer and General Superintendent of the Carthage & Adirondack Ry., from Carthage to Benson Mines and the Oswegatchie River. He removed to Watertown, N. Y., in 1889, and became a member of the firm of Hinds & Bond, civil engineers.

OBITUARY.

Mr. Bernard Martin, contractor, of Sandusky, O., died Sept. 25, aged 62.

Mr. Charles J. Fox, civil engineer and surveyor, of San Diego, Cal., died at San Lucas, Cal., recently.

Mr. William N. Clarke, a civil engineer engaged on the Soulanges Canal, died in Montreal, Que., Sept. 25, aged 27.

Mr. W. R. Bush, for a number of years owner of the electric light plant and water-works at Lake City, Fla., died Sept. 18.

Mr. H. A. W. Reeves, architect and mechanical engineer, of New York city, died suddenly in the Bank of Commerce Bldg., in that city, Sept. 30, aged 55.

Lieut. Rodmon Vernon Beach, Adjutant of the First Regiment of United States Volunteer Engineers, died at Ponce, Porto Rico, Sept. 28, aged 33. His home was in New Haven, Conn.

Mr. John P. Kelly, civil engineer, of Troy, N. Y., died Sept. 27. He was a graduate of the Rensselaer Polytechnic Institute in that city, and had been an engineer for the Public Improvement Commission and also an Assistant State Engineer.

Mr. William Kingsford, civil engineer and historian, died at his residence in Ottawa, Ont., Sept. 29, aged 78. He was born in London, England, and practiced the profession of civil engineering in that country before coming to the United States and Canada. He was engaged here as an engineer on the Hudson River Ry., the Lachine Canal and Victoria Bridge, and later was in charge of harbor works in the Provinces of Ontario and Quebec. He wrote and published a history of Canada, up to the time of the union of Upper and Lower Canada.

Mr. Thomas Fuller, late Chief Architect of the Department of Public Works, Ottawa, Ont., died Sept. 28, aged 76. He was born in Bath, England, and went to Canada in 1857. In 1859 his design for the Parliament Building at Ottawa was accepted, and he was awarded the second prize in the competition for the Parliament and Department buildings. His design also included a residence for the Governor-General. Mr. Fuller superintended the erection of the Parliament buildings. In 1867 he won the competition for a design for the new state capitol building at Albany, N. Y., and removed to that city to superintend its erection. In 1881 he returned to Canada and was appointed Chief Architect of the Public Works Department, which position he held until about a year ago, when he was superannuated, but retained an advisory position in the department.

ENGINEERING SOCIETIES.

COMING TECHNICAL MEETINGS.

CHICAGO ELECTRICAL ASSOCIATION.
Oct. 7. "Electrical Features of the Late Spanish-American War," Thos. G. Grier. Secy., J. R. Cravath, 825 Monadnock Block, Chicago, Ill.

TECHNICAL SOCIETY OF THE PACIFIC COAST.
Oct. 7. Secy., O. Von Geldern, 819 Market St., San Francisco, Cal.

MONTANA SOCIETY OF ENGINEERS.
Oct. 8. Secy., A. S. Hovey, National Bank Bldg., Helena, Mont.

NATIONAL ROAD PARLIAMENT.
Oct. 8. Omaha, Neb. Martin Dodge, Director Office of Road Inquiry, Washington, D. C.

ENGINEERS' CLUB OF KANSAS CITY.
Oct. 10. Secy., F. W. Tuttle, Baird Bldg., Kansas City, Mo.

THE LOUISIANA ENGINEERING SOCIETY.
Oct. 10. Secy., J. F. Coleman, 712 Union St., New Orleans, La.

NEW ENGLAND RAILROAD CLUB.
Oct. 11. Secy., Edw. L. Janes, P. O. Box 1158, Boston, Mass.

DENVER SOCIETY OF CIVIL ENGINEERS.
Oct. 11. Secy., W. B. Lawson, 36 Jacobson Bldg., Denver, Colo.

NORTHWEST RAILWAY CLUB.
Oct. 11. Secy., T. A. Foque, Soo Line, Minneapolis, Minn.

CIVIL ENGINEERS' CLUB OF CLEVELAND.
Oct. 11. Secy., Wm. H. Searles, Case Library Building, Cleveland, O.

AMERICAN RAILWAY ASSOCIATION.
Oct. 12. Holland House, New York. Secy., W. F. Allen, 24 Park Place, New York.

FRANKLIN INSTITUTE.
Oct. 12. "Anthracite Coal in Peru," Wm. Griffith. Secy., Wm. H. Wahl, 15 South 7th St., Philadelphia, Pa.

ENGINEERING ASSOCIATION OF THE SOUTH.
Oct. 13. Secy., C. B. Wilson, 1000 Broad St., Nashville, Tenn.

CANADIAN SOCIETY OF CIVIL ENGINEERS.
Oct. 13. Secy., C. A. McNab, 112 Mansfield St., Montreal, Canada.

ST. LOUIS RAILWAY CLUB.
Oct. 14. Secy., H. H. Roberts, 511 Commercial Bldg., St. Louis, Mo.

ENGINEERS' CLUB OF COLUMBUS.
Oct. 15. Secy., H. M. Gates, 12½ North High St., Columbus, O.

ENGINEERS' CLUB OF PHILADELPHIA.
Oct. 15. Secy., L. F. Rondinella, 1122 Girard St., Philadelphia, Pa.

TECHNICAL CLUB OF OMAHA.
Oct. 17. Secy., J. Harry Lawrie, Omaha, Neb.

ENGINEERS' CLUB OF MINNEAPOLIS.
Oct. 17. Secy., H. E. Smith, 1620 S. E. 4th St., Minneapolis, Minn.

ENGINEERS' AND ARCHITECTS' CLUB OF LOUISVILLE.
Oct. 17. Secy., Marshall Morris, 16 Norton Bldg., Louisville, Ky.

ENGINEERS' SOCIETY OF WESTERN PENNSYLVANIA.
Oct. 18. Secy., R. A. Fessenden, 410 Penn Ave., Pittsburg, Pa.

AMERICAN INSTITUTE OF MINING ENGINEERS.
Oct. 18. Annual meeting, Buffalo, N. Y. Secy., R. W. Raymond, P. O. Box 223, New York city.

AMERICAN ASSOCIATION OF RAILWAY SUPERINTENDENTS OF BRIDGES AND BUILDINGS.
Oct. 18-20. Annual meeting, Richmond, Va. Secy., S. F. Patterson, Boston & Maine R. R., Concord, N. H.

WESTERN SOCIETY OF ENGINEERS.
Oct. 19. "Masonry," Geo. S. Morison. Secy., N. L. Litten, Monadnock Block, Chicago, Ill.

AMERICAN SOCIETY OF CIVIL ENGINEERS.
Oct. 19. "Stave Pipe—Its Economic Design and the Economy of Its Use," Arthur L. Adams. Secy., C. W. Hunt, 220 W. 57th St., New York city.

ENGINEERS' CLUB OF ST. LOUIS.
Oct. 19. Secy., Richard McCulloch, 2401 N. Spring Ave., St. Louis, Mo.

ENGINEERS' AND ARCHITECTS' ASSOCIATION OF SOUTHERN CALIFORNIA.
Oct. 19. Secy., Frank H. Olmsted, Los Angeles, Cal.

BOSTON SOCIETY OF CIVIL ENGINEERS.
Oct. 19. Secy., S. E. Tinkham, City Hall, Boston, Mass.

WESTERN FOUNDRYMEN'S ASSOCIATION.
Oct. 19. Secy., B. M. Gardner, 1522 Monadnock Block, Chicago, Ill.

PENNSYLVANIA STREET RAILWAY ASSOCIATION.
Oct. 19-20. Annual meeting, Scranton, Pa. Secy., S. P. Light, Lebanon, Pa.

AMERICAN GAS LIGHT ASSOCIATION.
Oct. 19-21. Annual meeting, Niagara Falls, N. Y. Secy., Alfred E. Forstall, Montclair, N. J.

ENGINEERS' CLUB OF CINCINNATI.
Oct. 20. Secy., J. F. Wilson, P. O. Box 333, Cincinnati, O.

NEW YORK RAILROAD CLUB.
Oct. 20. Secy., W. W. Wheatley, 108 Montague St., Brooklyn, N. Y.

SOUTHERN AND SOUTHWESTERN RAILWAY CLUB.
Oct. 20. Secy., F. A. Charpiot, P. O. Box 13, Savannah, Ga.

AMERICAN SOCIETY OF MUNICIPAL IMPROVEMENT.
Oct. 26-28. Annual meeting, Washington, D. C. Secy., D. L. Fulton, Bureau of Highways and Sewers, Allegheny, Pa.

BROOKLYN ENGINEERS' CLUB.
Nov. 3. Secy., A. J. Provost, Jr., 191 Montague St., Brooklyn, N. Y.

ENGINEERS' SOCIETY OF WESTERN NEW YORK.
Nov. 7. Secy., H. J. March, Library Bldg., Buffalo, N. Y.

CIVIL ENGINEERS' SOCIETY OF ST. PAUL.
Nov. 7. Secy., C. L. Annan, City Engineers' Office, St. Paul, Minn.

RAILWAY SIGNALING CLUB.
Nov. 8. Secy., Earl M. Seitz, Signal Engineer, C. & N. W. Ry., Chicago, Ill.

SOCIETY OF NAVAL ARCHITECTS AND MARINE ENGINEERS.
Nov. 10-11. Annual meeting. Secy., Francis T. Bowles, 12 West 31st St., New York.

THE WESTERN FOUNDRYMEN'S ASSOCIATION.—This association enjoyed its usual annual outing on Sept. 21. The party, including members and guests, left Chicago by boat for Racine, Wis., where they inspected the works of the J. I. Case Threshing Machine Co. and the Belle City Malleable Iron Co. In the evening an elaborate banquet was served at the Racine Hotel.

ROCHESTER ENGINEERING SOCIETY.—The 5th annual excursion of this society took place on Oct. 1. The trip was over the Lehigh Valley R. R. to visit the docks and coal handling machinery of the Buffalo, Rochester & Pittsburg R. R. and the Lehigh Valley R. R. at Buffalo, N. Y. The Buffalo Engineering Society met the party at the docks and acted as an escort.

ENGINEERS' CLUB OF CINCINNATI.—At the meeting of this club, held Sept. 15, Mr. W. Hildenbrand, who has had charge of the remodeling of the suspension bridge at Cincinnati, read a very interesting paper describing the work; the principal features of which consisted in the putting up

of two additional cables, the entire reconstruction of the trusses and floor, the widening of the roadway and footwalks, the lengthening of the approaches and improvement in the grades. This was all accomplished without interfering with or interrupting the heavy travel of electric cars, vehicles and pedestrians. J. F. Wilson, Secy.

AMERICAN INSTITUTE OF ELECTRICAL ENGINEERS.—The 127th meeting of this society was held at the house of the American Society of Mechanical Engineers, New York city, Sept. 28 The Secretary, Mr. R. W. Pope, read the paper of the evening on "The Photometry of the Enclosed Alternating Arc," by Messrs. C. P. Matthews, W. H. Thompson and J. B. Hilbish, of Purdue University, Lafayette, Ind., which was a report of a series of experiments conducted by the authors to determine something of the behavior of the alternating enclosed arc lamp. An abstract of the paper and discussion is given elsewhere in this issue.

CHICAGO ELECTRICAL ASSOCIATION.—The secretary of this association, Mr. J. R. Cravath, has issued the following list of the papers to be presented at the fall meetings: Oct. 7, "Electrical Features of the Late Spanish-American War," Thos. G. Grier; Oct. 21, "Practical Points on Electrical Measurement," W. B. Hale; Nov. 4, "The Electrical Equipment of a Model Printing Establishment," George A. Damon; Nov. 18, "The Development of the Motor-Cycle," F. B. Rae; Dec. 2, "Practical Points in Street Railway Engineering," W. A. Harding; Dec. 16, "Wireless Telegraphy," Arthur V. Abbott; Jan. 6, "Telephone Engineering—Some Problems, Solved and Unsolved," S. G. McMeen; Jan. 20, "Observations on Ventilating Fans," Gerard Swope.

THE NATIONAL RAILROAD MASTER BLACKSMITHS' ASSOCIATION.—This association held its 6th annual meeting at the American House, Boston, Mass., Sept. 6-8. Reports from committees on the following subjects were received: "Handling Scrap Materials;" "Locomotive Forging;" "Furnaces;" "Making and Repairing Frogs and Crossings;" Making and Repairing Locomotive Frames;" and "Making and Repairing Track Tools." Mr. Geo. F. Hinkens read a very complete paper on "Compressed Air in the Blacksmith Shop," and also one on "How to Get the Best Results in Working Tool Steel—High and Low Carbon." Papers were also read by Mr. G. L. Lindsay on "The Best Method of Repairing Locomotive and Car Springs," and Mr. N. B. Meissimer, on "Flues and the Best Method of Repairing Lap and Butt Welding."

Officers for the ensuing year were elected as follows: Pres., W. W. McLelland, D. & R. G., Denver, Colo.; First Vice-Pres., G. F. Hinkens, St. P. & D., Gladstone, Minn.; Second Vice-Pres., G. A. Geuthner, Bost. & Me., Boston, Mass.; Secy. and Treas., A. L. Woodworth, C. H. & D., Lima, Ohio. Milwaukee, Wis., was decided upon as the next place of meeting.

AMERICAN PUBLIC HEALTH ASSOCIATION.—The 26th annual meeting of this association was held at Ottawa, Ont., on Sept. 27. About 100 delegates were present. A resolution was adopted recommending the appointment of an American, Canadian and Mexican Commission to arrange to have the Berthilon system of disease classification adopted by the three countries.

A paper entitled "Short-History of Sewage Disposal at the Asylum for the Insane, London, by Dr. R. M. Burke, was read. The sewage of this institution, about 75,000 gallons daily, is forced by a centrifugal pump, upon filter beds which, during freezing weather, are kept soft enough to absorb the water by the heat in the sewage. Fruit and vegetables valued at $200 per acre have since been raised upon the ground.

Mr. Thomas McFarlane, Dominion Analyst, read a paper on "The Disposal of Sewage in Some European Cities," which was followed by a paper entitled "Most Recent Methods of Sewage Disposal," by C. G. Houlyky, and others on "The Filtration of Sewage," by Capt. W. F. Van Buskirk; "The Interpretation of the Chlorine Member in Well Water," by A. McGill; and "The Farm Well," by Frank Shutt.

The afternoon was spent in driving about the city inspecting points of interest, and in the evening a reception was held at the City Hall.

NEW PUBLICATIONS.

AMERICAN STREET RAILWAY DIRECTORY AND BUYERS' MANUAL. First edition. Quarterly. New York: E. L. Powers. Paper; 6 x 9¼ ins.; pp. 82.

This is the first issue of a publication which will be issued quarterly in the future. In includes a complete list of electric, cable, horse and elevated railways in the United States and Canada, in which the names of all the principle officials, mileage, gage of track, number of cars, etc., are given.

The directory is well arranged, neatly printed and will doubtless be welcomed by every dealer in street railway supplies.

REPORT OF THE BUREAU OF MINES OF THE PROVINCE OF ONTARIO.—Vol. VII. Third Part. 1898. Archibald Blue, Director of the Bureau, Toronto, Ont. Pamph.; pp., 60, with several maps, diagrams and photographs.

This report contains some papers of interest to mining engineers and others, as follows: "Economic Geology of Eastern Ontario," being a report on corundum and other minerals, by Prof. W. G. Miller. "Analyses of Corundum and Corundum-Bearing Rock," by Dr. W. L. Goodwin. "The Concentration of Corundum," by Prof. Courtenay de Kalb. "Water Powers of Ontario," by Thomas W. Gibson. "Placer Gold on Vermillion River," by A. H. Gracey. The statistics of mineral production of Ontario for 1897 make a most meager exhibit, considering the undoubtedly great mineral wealth of the Province. They are as follows: Gold, $190,244; nickel, $359,651; copper, $200,067; iron ore, $4,869; pig iron, $288,129.

ELECTRIC STREET RAILWAY HISTORY.—Part I. The Westinghouse Electric & Mfg. Co. Pamph.; 6x9 ins.; pp. 38; illustrated.

This pamphlet tells a most interesting pictorial history of the development of the Westinghouse railway motor, from the old two-pole No. 1 motor, through the four-pole No. 3, No. 12 A, No. 38, No. 38 B, No. 49, to the latest type, No. 50. In these pictures several views of the motor in question are given so that an idea of outside and inside construction and the method of suspension can be gained. As a fitting accompaniment, several illustrations of railway generators and switchboards and the Westinghouse alternating, direct-current system of power transmission are included. These show rotary converters, transformers, etc. In conclusion, a number of interior views of the company's factory and several railway plants using Westinghouse apparatus are shown.

TRADE PUBLICATIONS.

(The standard sizes for pamphlets and trade catalogues recommended by all the principal engineering societies of the United States are: 8 1-2 x 6 ins.; 6 x 9 ins., and 9 x 12 ins.)

PECKHAM TRUCKS.—Peckham Truck Co., New York city.

These are half-tone illustrations on loose sheets of various styles of Peckham trucks for street cars of various classes.

THE DEDENDA GONG.—J. G. Brill Co., Philadelphia, Pa. Pamph.; 9 x 6 ins.

This is a brief description of a new form of gong for street cars. The feature of the gong on which stress is laid is its simplicity.

THE LARGEST DYNAMO IN THE WORLD.—By S. H. Short, Walker Electric Co., Cleveland, Ohio. Pamph.; 6 x 8 ins.; illustrated.

This is a neatly gotten up illustrated description of a 3,000-K-W. (4,000 HP.) railway generator, ordered of the Walker company, by the Boston Elevated Ry. Co. The total weight of the machine is 250,000 lbs.

BOOSTERS.—Walker Co., Cleveland, Ohio. Circular, 7⅞ x 10¾ ins.; illustrated.

This is No. 1086, superseding No. 1068, of the regular Walker series of circulars. In it motor-dynamos, or "boosters," as they are generally called, are briefly described and illustrated.

WALKER CAR MOTORS FOR STREET LINES, ELEVATED OR SUBURBAN TRAFFIC.—Circular 1085 describes the Walker motor, outlining various features, such as accessibility, speed, efficiency, simplicity, ease of repair, power, etc. Several illustrations of the armature and field parts are also given.

ALTERNATING CURRENT APPARATUS. — Circular 1084.—This gives a brief description of some of the apparatus built by this company for the generation of alternating currents. Illustrations and dimension tables accompany the text.

THE LOVE UNDERGROUND CONDUIT.—Circular 1083 explains the salient features of this conduit system, which was described in Engineering News, Aug. 4, 1898.

STEEL LIGHTING GENERATORS.—Circular 1081.—This is an illustrated description of a type of generator designed for purposes where the load is fairly constant, or where the load variations are gradual.

TYPE "S," SOLENOID BLOW-OUT CONTROLLER.—Circular 1080 is, as implied in the title, a description of this type of street railway motor controller. Illustrations serve to make its construction and use clear.

RAILWAY SAFETY APPLIANCES.—Safety Appliance Co., Boston, Mass. Pamph.; 6 x 9 ins.

This pamphlet calls attention to several safety appliances for use upon railway cars. These are: A form of brake equalizer; draw-bar adjuster, spring suspension and dead lever take up. These devices are illustrated and briefly described.

CONSTRUCTION NEWS.

CONDENSED LIST OF CONTRACTS PENDING WITH DATE OF OPENING BIDS.

Bids to be opened.	Work.	Place.	See Eng. News.
Oct. 6.	Electric light plant, St. Joseph, Ill.		Sept. 22
	Advertised, Engineering News, Sept. 22.		
Oct. 6.	Water-works, Greensboro, Ga.		Sept. 22
Oct. 6.	Brick paving, Erie, Pa.		Sept. 29
Oct. 6.	Water-works, Osage, Ia.		Sept. 29
	Advertised, Engineering News, Sept. 29.		
Oct. 6.	Highway (4,600 lin. ft.), Newburyport, Mass.		Oct. 6
Oct. 6.	Sidewalks, Riverton, N. J.		Oct. 6
Oct. 6.	Cement walks and grading, Wilmington, Del.		Oct. 6
Oct. 6.	Paving one alley, Bloomington, Ill.		Oct. 6
Oct. 7.	Steel bridge, and material, Colfax, Wash.		Oct. 6
Oct. 7.	Bridge, Auburn, Cal.		Oct. 6
Oct. 7.	Sewers and paving, Allegheny, Pa.		Oct. 6
Oct. 7.	Brick sewers, Providence, R. I.		Oct. 6
Oct. 7.	Refilling bridge approaches, Pittsburg, Pa.		Oct. 6
Oct. 7.	Grading and paving, Allegheny, Pa.		Oct. 6
Oct. 7.	Pipe sewer, Marion, O.		Oct. 6
Oct. 7.	Building, Oberlin, O.		Sept. 29
Oct. 7.	Water pipe, Milledgeville, Ill.		Sept. 29
Oct. 7.	Arc lighting, Asheville, N. C.		Sept. 22
Oct. 8.	Bridge work, Cincinnati, O.		Sept. 22
Oct. 8.	School building, Bisbee, N. Dak.		Sept. 22
Oct. 8.	Dredging, etc., League Island Navy Yard, Pa.		Sept. 29
Oct. 8.	Electric plant, Baltimore, Md.		Sept. 29
Oct. 8.	Bridge abutments, Tunkhannock, Pa.		Oct. 6
Oct. 8.	Tunnel, Cambridge, Mass.		Oct. 6
Oct. 8.	Grading, paving, etc., Zanesville, O.		Oct. 6
Oct. 8.	Steel stand-pipe, Indian Head, Md.		Oct. 6
Oct. 10.	Masonry abutments and piers, Boston, Mass.		Oct. 6
Oct. 10.	Street bonds, Portchester, N. Y.		Oct. 6
Oct. 10.	Sewer, Camden, N. J.		Oct. 6
Oct. 10.	Sewerage system, Woodbridge, N. J.		Oct. 6
	Advertised, Engineering News, Oct. 6.		
Oct. 10.	New substructure, etc., Lansing, Mich.		Oct. 6
Oct. 10.	Paving Canal St., New Orleans, La.		Oct. 6
Oct. 10.	Water-works, Melrose Park, Ill.		Oct. 6
Oct. 10.	Water pipe, The Dalles, Ore.		Oct. 6
Oct. 10.	Electric railway, Nyack, N. Y.		Oct. 6
Oct. 10.	Grading and graveling, Muncie, Ind.		Sept. 29
Oct. 10.	School building extension, Brooklyn, N. Y.		Sept. 29
Oct. 10.	Elevators (3), New York, N. Y.		Sept. 29
Oct. 10.	Building brick, Philadelphia, Pa.		Sept. 29
	Advertised, Eng. News, Sept. 29 and Oct. 6.		
Oct. 10.	Sewers and disposal plant, E. Cleveland, O.		Sept. 22
Oct. 10.	Dredging, Wilmington, Del.		Sept. 22
	Advertised, Eng. News, Sept. 15 and 22.		
Oct. 10.	Cement, stone, etc., Ft. Washington, D. C.		Sept. 22
	Advertised, Eng. News, Sept. 22 and 29.		
Oct. 10.	Asphalt and brick paving, Council Bluffs, Ia.		Sept. 22
Oct. 10.	Turbine wheels (24), Wrightsville, Pa.		Sept. 8
	Advertised, Eng. News, Sept. 8 and 15.		
Oct. 10.	Trestle, Chehalis, Wash.		Sept. 8
Oct. 10.	Paving, Toledo, O.		Sept. 15
Oct. 11.	School building, New Brunswick, N. J.		Sept. 29
Oct. 11.	Building, Boonton, N. J.		Sept. 29
Oct. 11.	Municipal building work, Brooklyn, N. Y.		Sept. 29
Oct. 11.	Steel bridges (4), Parker, S. Dak.		Oct. 6
Oct. 11.	Pipe sewers, Clinton, Ia.		Oct. 6
Oct. 11.	Heating, Chicago, Ill.		Oct. 6
Oct. 11.	Sewers, Beloit, Wis.		Oct. 6
Oct. 11.	Levee work, Scioto River, Columbus, O.		Oct. 6
Oct. 11.	Steel shells, etc., at water-works, Chicago		Oct. 6
Oct. 12.	Repairing draw-bridge, Camden, N. J.		Oct. 6
Oct. 12.	Stone arch culvert, etc., Cleveland, O.		Oct. 6
Oct. 12.	Heating, etc., Danville, Ill.		Oct. 6
Oct. 12.	Water-works, Knoxville, Pa.		Oct. 6
	Advertised, Engineering News, Oct. 6.		
Oct. 12.	Brick work, Oxford, O.		Sept. 29
Oct. 12.	Hospital buildings, San Francisco, Cal.		Sept. 15
Oct. 12.	Park bonds, Spokane, Wash.		Sept. 1
Oct. 12.	Sewers, Cohoes, N. Y.		Sept. 29
	Advertised, Eng. News, Sept. 29 and Oct. 6.		
Oct. 13.	Hire of dredging plant, Mobile, Ala.		Sept. 15
	Advertised, Eng. News, Sept. 15 to Oct. 6.		
Oct. 13.	Portland cement, Seattle, Wash.		Sept. 29
Oct. 13.	School building, Waterbury, Conn.		Oct. 6
Oct. 13.	Asphalt paving, New York, N. Y.		Oct. 6
Oct. 13.	Water tanks, Chicago, Ill.		Oct. 6
Oct. 13.	Park work, New York, N. Y.		Oct. 6
Oct. 13.	Removing ashes, etc., Cleveland, O.		Oct. 6
Oct. 14.	Bridge, Vaucluse, S. C.		Oct. 6
Oct. 14.	Grading and brick paving, Cleveland, O.		Oct. 6
Oct. 14.	Maintaining asphalt, St. Louis, Mo.		Oct. 6
Oct. 14.	Pipe sewers, Madison, Wis.		Sept. 29
	Advertised, Eng. News, Sept. 29 and Oct. 6.		
Oct. 14.	Cement walks, North Vernon, Ind.		Sept. 15
Oct. 15.	Water-works, Wagoner, Ind. Ter.		Sept. 22
	Advertised, Eng. News, Sept. 22 to Oct. 6.		
Oct. 15.	Masonry, woodwork, etc., Cincinnati, O.		Sept. 22
Oct. 15.	School building, Harris, Minn.		Sept. 22
Oct. 15.	Sewers, Marietta, O.		Sept. 22
Oct. 15.	Electric light plant, Charlotte, N. Y.		Sept. 29
	Advertised, Eng. News, Sept. 29 and Oct. 6.		
Oct. 15.	Electric plant, Bremerton, Wash.		Sept. 29
Oct. 15.	Water-works, Charlotte, N. Y.		Sept. 29
	Advertised, Eng. News, Sept. 29 and Oct. 6.		
Oct. 15.	Ocean Ave., improvement, New London, Ct.		Oct. 6
Oct. 15.	Light station, New Haven, Conn.		Oct. 6
	Advertised, Eng. News, Oct. 6 and 13.		
Oct. 15.	Electric light plant, Wynne, Ark.		Oct. 6
Oct. 15.	Pipe sewer, Passaic, N. J.		Oct. 6
Oct. 15.	Water bonds, Crystal, Minn.		Oct. 6
Oct. 15.	Water-works, Wynne, Ark.		Oct. 6
Oct. 15.	Water supply, Monrovia, Cal.		Oct. 6
Oct. 17.	Electric lighting, Camden, N. J.		Oct. 6
Oct. 17.	Sewers, etc., Albany, N. Y.		Oct. 6
Oct. 17.	Asphalt paving, etc., Logansport, Ind.		Oct. 6
Oct. 17.	Sewer foundation, Burlington, Ia.		Oct. 6
Oct. 17.	Dredging Lake Merritt, Oakland, Cal.		Oct. 6
Oct. 17.	Street improvements, Hamilton, O.		Sept. 29
Oct. 17.	Water pipe, Wytheville, Va.		Sept. 29
Oct. 17.	Sewerage system, Mobile, Ala.		Sept. 22
	Advertised, Eng. News, Sept. 22 to Oct. 6.		
Oct. 17.	Gasholder, etc., Edinburgh, Scotland		Sept. 1
Oct. 18.	Railway track, Cincinnati, O.		Sept. 22
Oct. 18.	Paving, Sharpsburg, Pa.		Oct. 6
	Advertised, Eng. News, Sept. 29 and Oct. 6.		
Oct. 18.	Machinery etc., Naval Station, Puget Sound		Sept. 29
Oct. 18.	Street bonds ($60,000), Sharpsburg, Pa.		Oct. 6
Oct. 18.	Water-works, Alden, N. Y.		Oct. 6
	Advertised, Engineering News, Oct. 6.		
Oct. 18.	Electric railway franchise, Portage, O.		Oct. 6
Oct. 19.	Sewer, New York, N. Y.		Oct. 6
Oct. 19.	Levee work, New Orleans, La.		Sept. 29
Oct. 19.	Asphalt paving, Winnipeg, Man.		Sept. 29
Oct. 20.	Viaduct over Lick Run, Cincinnati, O.		Sept. 22
Oct. 21.	Levee work, West Memphis, Tenn.		Sept. 22
	Advertised, Eng. News, Sept. 22 to Oct. 13.		
Oct. 21.	Dry dock, Algiers, La.		Sept. 8
Oct. 20.	Electric light bonds, Grafton, W. Va.		Oct. 6
Oct. 20.	Steam heating, etc., York, Pa.		Oct. 6
Oct. 20.	Cottage, Lancaster, O.		Oct. 6
Oct. 22.	Iron bridges (2), Salem, Va.		Oct. 6
Oct. 22.	Bridge, plans and material, Cincinnati, O.		Sept. 29
Oct. 22.	Electric plant, Litchfield, Ill.		Sept. 29
Oct. 22.	Dredging, Pensacola Bay, Fla.		Sept. 29
	Advertised, Eng. News, Sept. 29 to Oct. 13.		
Oct. 23.	Plans for sewer system, Chertsey, Eng.		Sept. 22
Oct. 24.	Markets, etc., Belem, Brazil		Apr. 28
Oct. 24.	Paving with asphalt, etc., Hamilton, O.		Sept. 29
Oct. 24.	Water-works, Gallipolis, O.		Sept. 29
Oct. 24.	Heating plant, St. Peter, Minn.		Sept. 29
Oct. 24.	Storage reservoir, Bradford, Pa.		Oct. 6
	Advertised, Eng. News, Oct. 6 and 13.		
Oct. 25.	Jetties, Portland, Ore.		Aug. 25
	Advertised, Eng. News, Aug. 25 to Sept. 15.		
Oct. 26.	Bridge bonds, Cincinnati, O.		Sept. 29
Oct. 26.	Dredging, Newport, R. I.		Sept. 29
	Advertised Eng. News, Sept. 29 to Oct. 20.		
Oct. 26.	Cement, broken stone, etc., Newport, R. I.		Sept. 29
	Advertised Eng. News, Sept. 29 to Oct. 20.		
Oct. 26.	Sewer bonds, Glenville, O.		Oct. 6
Oct. 27.	U. S. building, Camden, N. J.		Oct. 6
	Advertised, Eng. News, Oct. 6 and 13.		
Oct. 27.	Paving, Camden, N. J.		Sept. 29
Oct. 28.	Asphalt, brick or stone, Atlanta, Ga.		Oct. 6
Oct. 28.	Brick paving, etc. (7 Sts.), Cleveland, O.		Oct. 6
Oct. 28.	Brick and stone wall, Atlanta, Ga.		Oct. 6
Oct. 28.	Stone wall, San Francisco, Cal.		Oct. 6
Oct. 29.	Steam tender, Louisville, Ky.		Oct. 6
Oct. 30.	School building, Chehalis, Wash.		June 16
Nov. 1.	Court house, Garner, Ia.		Sept. 8
Nov. 1.	School building, St. Louis, Mo.		Sept. 22
Nov. 7.	Improving electric plant, Topeka, Kan.		Sept. 22
Nov. 9.	Electric light plant, Toronto, Ont.		Oct. 6
	Advertised, Engineering News, Oct. 6.		
Nov. 9.	Electric energy, Toronto, Ont.		Oct. 6
	Advertised, Engineering News, Oct. 6.		
Nov. 10.	Water supply, Belem, Brazil		Sept. 22
Nov. 15.	Water-works addition, Seattle, Wash.		Sept. 22
	Advertised, Eng. News, Sept. 22 to Nov. 10.		
Nov. 15.	Jail work, San Saba, Tex.		Sept. 29
Nov. 15.	Electric lighting, Greensboro, N. C.		Oct. 6

Nov. 21. Government bldgs (8), Sophia, Bulgaria....Sept. 29
Nov. 30. Bridge, etc., and plans, Moline, Ill.....Oct. 6
Advertised, Eng. News, Oct. 6 and 13.
Dec. 1. Electric lighting, Sumter, S. C. .....Oct. 6
Dec. 31. Plans for station, etc., Stockholm, Sweden. June 23
Jan. 1. City hall plans, Bridgeport, Conn.....Aug. 18
Jan. 2. Bridge, Quebec, Que. .....Sept. 29
Advertised, Eng. News, Sept. 29 and Oct. 6.
Feb. 10. Jail building, Keyser, W. Va. .....Sept. 29

RAILWAYS.

ALLEGHENY & WESTERN.—S. H. Lea, Res. Engr., Adrian, Pa., informs us that track-laying has been commenced at the eastern end of this line where several miles of grading have been finished. Good progress is being made on the piers for the bridge across the Allegheny River, at Mosgrove, Pa.; work is also being carried on night and day on the "Big Cut" at Lyons farm, containing over 250,000 cu. yds. of material. The stretch of six miles from the Lyons Cut to the Allegheny River is one of the heaviest pieces of work in this country. There are to be two steel viaducts within 1½ miles of Adrian. One of these will have a maximum height of 95 ft.; the other is 102 ft. at its highest point. At the "Devil's Gulch," one mile east of Adrian, is a steep culvert with a fall of more than 40 ft.; over this culvert is an embankment 100 ft. high. The remainder of the line to the river is extremely heavy, and is such as may be termed titanic. The maximum gradient is 1%, compensated for curvature. The rails are 100 lbs. to the yard, and are made by the Carnegie Steel Co.

ATLANTA & WEST POINT.—George C. Smith, Pres., Atlanta, Ga., informs us that this company will build a belt line of steam railway, six miles in length, to extend around the eastern side of Atlanta to the Georgia R. R., and that contracts will be let in 30 to 60 days. The right of way has been obtained, and final location of the line is now being made. Reports state that five or six bridges and a tunnel will have to be erected, and that the cost of the work will be $200,000. G. F. Huggans, Ch .Engr., Montgomery, Ala.

ATLANTIC COAST LINE.—Press reports state that this company has decided to build a branch line from Denmark to Robbins, via Barnwell, S. C. I. R. Kenley, Gen. Mgr., Wilmington, N. C.

BLACK DIAMOND.—Press reports state that Sir Thomas Tancred, representing a company of English capitalists, is inspecting the right of way of this proposed railway from Springfield, Ill., to Port Royal, S. C., a distance of about 1,200 miles. Col. Albert E. Boone, Gen. Mgr., Zanesville, O.

CALIFORNIA NORTHWESTERN.—This company, which has recently been incorporated with a capital stock of $3,000,000, has leased the entire system of the San Francisco & North Pacific Ry. Co. for 20 years. The new company proposes to build a connecting line from the existing railway to the timber belt of Mendocino county. Four locations have been surveyed, but the point of connection has not yet been decided upon. F. K. Zook, Ch. Engr., San Rafael, Cal.

CHOCTAW & MEMPHIS.—Reports state that four corps of engineers are now in the field surveying for this proposed line from the terminus of the Choctaw, Oklahoma & Gulf at Wister Junction, Ind. Ter., to the Little Rock & Memphis R. R., at Little Rock, Ark., 150 miles. Henry Wood, Gen. Mgr., Smith McAlester, Ind. Ter., has stated that rails have been purchased but not the rolling stock; also that the entrance into Little Rock will probably form the south side of the river, which will necessitate the erection of another bridge across the Arkansas.

DULUTH & NORTHEASTERN.—J. H. Heininger, Cloquet, Minn., informs us that this will be a 40-mile first-class logging road to be built for the Cloquet Lumber Co. Surveys have been made, the capital secured and contracts let. The route at present will be from the Duluth & Iron Range R. R. south to the Cloquet River. Pres., F. Weyerhauser, St. Paul, Minn. J. B. Phelps, Davenport, Ia., also informs us that the contract is held by Williamson, Campbell & Gowin, of Duluth.

EL PASO & NORTHEASTERN.—J. L. Campbell, Ch. Engr., El Paso, Tex., informs us that this proposed railway has been completed from El Paso to Alamogordo, N. Mex., a distance of 86 miles. Work on the main line is suspended for the present, pending construction of a branch line, 16 miles in length, to timber along the route. The northern terminus will be at White Oaks, and the completed system will be 165 miles long. George S. Good & Co., El Paso, Tex., and Lock Haven, Pa., are the contractors. Financiering has not yet been entirely completed. After Oct. 1 the chief engineer will be H. A. Sumner. Pres., C. B. Eddy, El Paso.

FLORIDA.—Reports state that Strickland & Wesley, of Point Washington, Fla., desire to communicate with parties regarding the construction of a 10-mile logging railway.

GALVESTON, BRAZOS & SOUTHWESTERN.—Construction work along this proposed line has been abandoned for the present. The route is from Galveston to San Antonio, Tex., a distance of 200 miles. Grading has been completed between Galveston and Angleton, Tex., a distance of 30 miles. Pres., L. P. Featherstone; Ch. Engr., L. E. Beadle, both of Galveston, Tex.

GEORGIA.—A. H. Morgan, manufacturer of cross-ties, etc., Waycross, Ga., informs us that he is in the market for five or six miles of 35- or 40-lb. steel or iron relay rails, f. o. b. Boston, New York, Philadelphia or Baltimore. He also desires to furnish for the West Indies market 100,000 yellow pine ties, delivered at Port Tampa, Fla.

JASPER SOUTHERN.—L. P. Scarborough, Secy., Jasper, Tex., informs us that this company does not expect to extend its lines. The present line is 20 miles in length, extending from Kirbyville to Jasper. Pres., W. J. B. Adams; Ch. Engr., W. W. Blake, both of Jasper.

LOGANSVILLE & LAWRENCEVILLE. — We are informed that A. & C. Wright & Co., of Richmond, Va., completed the grading, trestling and masonry on this line in July; also that tracking is now about completed and operation will soon be commenced. The road is to be a feeder to the Seaboard Air Line, running from Lawrenceville, on this line, to Logansville, via Trip, Ga., a distance of ten miles. Pres., Nathan Bennett, Logansville, Ga.; Ch. Engr., N. E. Luzolf, Portsmouth, Va.

LOUISIANA & NORTHWEST.—J. D. Beardsley, Gen. Mgr., Gibsland, La., informs us that this company has completed the extension from Homer, La., north to Magnolia, Ark., a distance of 36 miles, and that it has acquired the branch of the St. Louis Southwestern Ry., running from Magnolia to the main line at McNeil, 6.4 miles. The present length of the route is 78 miles, from Bienville, La., to McNeil, Ark. William Washburn, Ch. Engr., Gibsland, La.

LOUISVILLE & NASHVILLE.—Reports state that improvements are now in progress along this line between Louisville and Bowling Green, Ky., which have in view the reduction of all grades over 0.8 per cent., where possible. The work is being done by the Globe Construction Co. A. R. Wing is also said to have a contract to build three miles of new road near Green River where the reduction of grade would not be practicable. R. Montfort, Ch. Engr., Louisville, Ky.

MEXICAN CENTRAL.—Lewis Kingman, Ch. Engr., Mexico, Mex., informs us that track-laying was finished Sept. 15, on the new extension of this line from Jiminez to Parral, Mex., a distance of 55 miles. It is proposed to open the line on Oct. 9.

NORTHERN.—Reports state that this company has recently been incorporated in Missouri to construct about ten miles of railway from Trimble to Gower, Mo., with the object of giving the St. Joseph & Grand Ry. a shorter route from St. Joseph to Kansas City. Surveys have been made. A. L. Stillwell, Pres.; H. C. Smith, Asst. Engr., both of Kansas City.

NORTON BAY & YUKON.—Press reports state that this company will begin to build next June a line of railway from the mouth of the Unalaklik River, on Norton Sound, to Kaltag, a town on the Yukon River below Nulato, a distance of about 76 miles. The survey for the first route has been finished, and it is said that the maximum grade will not exceed 2%. Pres., E. A. Gardner, Chicago, Ill.; Ch. Engr., F. A. Hill, Seattle, Wash.

OREGON & MISSOURI NORTHERN.—Robert S. Doubleday, Ch. Engr., Oregon, Mo., informs us that surveys have been made, the right of way arranged for and the capital for construction secured for this proposed line. Most of the contracts have been let, and work is now under way. T. A. Davis, St. Joseph, Mo., is the principal contractor. This company was incorporated Sept. 3 with a capital stock of $100,000, to construct a railway from Forest City to Oregon, Mo., five miles, and thence to extend north and east through towns not yet definitely specified. Pres., Irving H. Wheatcroft, of Oregon, also general manager of the Colorado Valley Ry.

PETERSBURG.—Phillips, Wright & Co., of Richmond, Va., are said to have been awarded the contract Sept. 16 for the graduation of a line about ten miles in length, beginning about two miles south of Petersburg, Va., and running southeasterly in proximity to the existing railway. E. T. D. Myers, Ch. Engr., Richmond, Va.

PORTLAND & NEHALEM.—This company has been organized in Oregon, with a capital stock of $100,000, according to reports, for the construction of a railway from a point on the Nehalem River southeast to Portland, Ore., a distance of about 50 miles. Thornburn Ross, Chamber of Commerce Bldg., Portland, is said to be interested.

SAGINAW SOUTHERN.—This company was incorporated in Arizona, Sept. 28, with a capital stock of $250,000, to construct a railway from Williams, on the Santa Fe Pacific, to Jerome, Ariz., via Cocimino and Yavapai counties, with a total length of 50 miles. Among the incorporators are: John C. Brown, George C. Wharton, Max Salzman, Wm. P. Cutting, Chas. F. Roberts and Edward M. Doe.

SAN FRANCISCO & SAN JOAQUIN VALLEY.—Reports state that work is progressing rapidly on the Franklin tunnel which is being made through the Contra Costa hills, west of Stockton, Cal., and that about 1,700 ft. are now completed. The total length will be 5,700 ft., and work is expected to be finished within ten months. Foley Bros. & Muir, St. Paul, Minn., are the contractors. W. B. Storey, Jr., Ch. Engr., San Francisco, Cal.

SAVANNAH & STATESBORO.—W. C. Parker, of Statesboro, Ga., informs us that part of this proposed railway system is now in operation between Cuyler and Woodburn, Ga., a distance of 13 miles. An extension is in process of construction from Woodburn to Statesboro, five miles. The contract requires the line to be ready for operation in nine months; considerable grading has been completed, and a subscription of $10,000 made by the citizens of Statesboro towards completing the work. The rails are reported to have been bought. Pres., Stilson Hutchins, Washington, D. C.

ST. LOUIS & OKLAHOMA CITY.—Track has been laid on this new line to a point about 65 miles southwest of Sapulpa, Ind. Ter., and the line is in operation between Sapulpa and Stroud, Okla. Grading has been completed for several months along the entire route to Oklahoma City, Okla., a distance of 103½ miles. Pres., T. G. Jones, Oklahoma City.

ST. LOUIS, CHICAGO & ST. PAUL.—Press reports state that Col. William H. Male, Pres. of St. Louis, Alton & Springfield Co., of New York, has been appointed receiver of this company.

SUMMERVILLE, BLUE MOUNTAIN & WALLA WALLA.—This company was incorporated in Oregon at the time of the incorporation of the Union, Cornucopia & Eastern Ry. Co., to construct a railway from a junction on the Union, Cove & Valley Ry. to Walla Walla, via Summerville and Elgin. Joseph Johnson, Supt. of Construction, Union, Ore.

UNION PACIFIC.—Press reports state that this company contemplates the building of a cut-off between Cheyenne and Laramie, which will materially reduce the grade. J. B. Berry, Ch. Engr., Omaha, Neb.——The Seminoe Mining Co. expects to construct a branch line from the main line of the Union Pacific to Seminoe, to be used to haul iron ore from the company's mines. Mgr., E. H. Saltiel.

VIRGINIA.—The citizens of Gloucester county will vote at Gloucester, Va., Nov. 8, on the question of issuing $50,000 of 5% railway aid bonds.

WISCONSIN.—H. Zech, of Crivitz, Wis., contemplates the construction of a railway from Crivitz, on the Chicago, Milwaukee & St. Paul Ry. up the Peshtigo River to a connection with the Minneapolis, St. Paul & Sault Ste. Marie Ry., a distance of about 30 miles. Surveys have been made and work is expected to commence soon.

STREET AND ELECTRIC RAILWAYS.

WESTBROOK, ME.—Reports state that work was commenced on the proposed Westbrook, Windham & Harrison Electric Ry., Sept. 28, under the direction of J. H. Tolman, J. C. Scates, C. M. Waterhouse and C. B. Woodman, the owners of the charter. It is expected to complete the first ten miles, of a total length of 32 miles, within the next six weeks.

BELLOWS FALLS, VT.—The Bellows Falls & Saxtons River Electric Ry. expects to begin the construction of its proposed electric railway, six miles in length, this fall, so as to have cars running by December. Pres., J. H. Holton, Burlington, Vt.; Vice-Pres., A. N. Swain, Bellows Falls; Treas., J. J. Flynn, Burlington.

NEWBURYPORT, MASS.—It is announced that the Newburyport & Amesbury St. Ry. Co. has gone into the hands of a receiver, and that the Citizens' Electric St. Ry. Co. is to be organized, with a capital stock of $150,000, to purchase and improve the system. Among those interested are: W. B. R. Ferguson, Malden, Mass.; B. D. Sumner, Newton; E. P. Shaw, Jr., Brookline; Charles Goss, Amesbury; Jas. F Shaw, Newburyport.

QUINCY, MASS.—The council has ordered a public hearing for Oct. 10 on the petition of the Boston, Quincy & Fall River Bicycle Ry. Co. for the right to build in certain portions of this city. Pres., E. Moody, Boynton.

ALBANY, N. Y.—The map and profile of the route of the proposed Albany, Helderberg & Schoharie Electric Ry. were filed with the clerk of Albany county, Sept. 30, and notices are being served, preparatory to construction. As fully stated in our issue of June 9, the contract for building the line has been awarded to the Albany Construction Co., 93 State St., Albany, of which J. S. Frost, of Albany, is secretary. The route is from Albany to Schoharie, a distance of 42 miles. Pres., Henry Burgett; Treas., Chas. E. Bibbler, both of Boston, Mass.

NYACK, N. Y.—We are informed that Isaac A. Walker & Son, General Railway Contractors, Stephen Girard Bldg., Philadelphia, Pa., have purchased the franchise, rights of way, etc., of the Nyack Traction Co., and have reorganized the company, with the following officers: Pres., Henry C. Howard, Chester, Pa.; Treas., E. F. Walker, and Secy., Geo. D. Howell, both of Philadelphia. The survey has been completed and bids have been advertised for to be in by Oct. 10. The capital for construction has been secured, and contracts will be let as shortly after Oct. 10 as possible. The projected line is about 12 miles in length, and will have all the latest improvements, ballasted track, 70-lb. rail, etc. The route is from Sparkhill along the river road to South Nyack, Nyack and Upper Nyack, with an extension from the ferry at Nyack to the West Shore R. R. station, and from Upper Nyack to Rockland Lake. The road will be built by I. A. Walker & Son.

ROCHESTER, N. Y.—The directors of the Rochester, Charlotte & Manitou R. R. Co. have decided to fill in 1,000 ft. of trestle over the inlets; to put on ten new 4-motor trolley cars, and to build a large platform at Manitou. The question of extending the road four miles to Hilton was also considered. Pres., Michael Doyle, 32 White St.

SKANEATELES, N. Y.—It is reported that construction work on the Inter-Urban St. Ry. has been begun by G. D. Grannis, of Syracuse. The proposed line is to run between Skaneateles and Auburn, with a possible extension to Syracuse. T. H. Mather, of Syracuse, is said to be the engineer in charge.

WEBSTER, N. Y.—The Rochester & Sodus Bay Electric Ry. Co. has secured the right of way through this town.

CAMBRIDGE SPRINGS, PA.—This borough has granted the Erie Transit Co. rights of way upon certain streets for the construction of a new electric railway. Burgess, J. C. Allee.

JOHNSTOWN, PA.—N. F. Thompson, Secy. of Board of Trade, informs us that the Johnstown Board of Trade is promoting the construction of a trolley line from this city to Scalp Level, a distance of seven miles. Arrangements have progressed so far as to assure of the building of a road to connect these points merely for the benefit of Johnstown. It is possible that steam may be the motive power, and freight and passenger traffic handled, but it will soon be more definitely decided.

BALTIMORE, MD.—James Bond, Pres. American Bonding & Trust Co., of Baltimore, informs us that the Baltimore, Marley & Mountain Ry. Co., the incorporation of which was noted in our last issue, is only an organization for making the preliminary surveys and obtaining right of way, etc., after which a permanent organization for construction purposes will be effected.

WASHINGTON, D. C.—E. Saxton, of Washington, is stated to have been awarded the contract for constructing the conduits for the new underground electrical system on the City & Suburban Ry., formerly the Eckington & Soldiers' Home R. R. The contract for the iron work was let to Johnson & Co., of Pennsylvania; for the overhead construction, to J. G. White & Co., Baltimore, Md.; for the track-laying, and overhead section, to W. H. Allen, of Washington.

WHEELING, W. VA.—We are informed that the Wheeling Ry. Co. is now building an extension from its present terminus in Martins Ferry to the north end of the city, a distance of about 1.1 miles, and that the construction of the one-mile extension to the fair grounds has been completed. Pres., T. H. Conderman.

KNOXVILLE, TENN.—It is reported that J. C. Monday, a contractor of Knoxville, is formulating a scheme to build an electric railway to Sevierville from this city. The surveys have all been made, and the Knox county court will be asked to appropriate $100,000 toward building the road, and the Sevier county court $50,000.

PORTAGE, O.—Bids are asked until Oct. 18 for the purchase of a franchise to build an electric line through this village. Address the village clerk.

STEUBENVILLE, O.—Preliminary surveys have been completed for a new street railway line between this city and Mingo Junction, and it is said that the line will be built within the next few months. It is also stated that the line will be a link in the system which is to connect Pittsburg with Wheeling, by way of the towns along the Ohio River.

MEROM, IND.—A. D. Hayworth, of Washington, D. C., and others are said to be interested in the construction of an electric railway from Terre Haute to Merom, 32 miles.

PORTLAND, IND.—N. K. Todd, of Bluffton, Ind., one of the incorporators of the Portland & Camden R. R., informs us that no surveys have yet been made for the projected line, nor has the capital been secured. The company was incorporated to build from Portland to Camden, via Dunkirk, Albany, Pennville and Bluffton, a distance of 12 miles.

HIGHLAND PARK, MICH.—The trustees of this village have granted a franchise to the Detroit Citizens' St. Ry. Co. to extend its line up Woodward Ave. to the Six Mile Road. Pres., Tom L. Johnson, 12 Woodward Ave., Detroit.

CHICAGO, ILL.—Bids are being received, according to reports, by the West Chicago and North Chicago St. R. R. Cos. for equipping their cars with fenders; estimated cost, $300,000.

ROCKFORD, ILL.—The Rock River Construction Co., of Chicago, has received the contract for the building of the proposed Rock River Electric Ry. from Oregon to Rockford, 30 miles, and work is expected to begin at once, so as to be completed by Jan. 1.

WICHITA, KAN.—Finlay Ross, Mayor of Wichita, informs us that the Wichita St. Ry., Light & Power Co. has had its franchise renewed on condition that the entire line of 20 miles be rebuilt of new material, and that new equipment be used; also that work be completed before April 1. Pres., H. B. Church, of Wichita.

KANSAS CITY, MO.—F. W. Sears, Gen. Mgr. of Missouri Electric Ry. Co., Baird Bldg., Kansas City, informs us that surveys have all been made for this proposed 12-mile electric railway from 11th St. and Grand Ave., in Kansas City, to Swopes Park and Dodson, and that a petition for a franchise within the city limits will be presented to the council within 60 days. Right of way outside city limits has been secured. The company is capitalized at $500,000, of which one-half is paid in. No contracts will be let until the city franchise has been granted, which will probably be before Jan. 1. Pres., Henry Smith, New York Life Bldg., Kansas City.

BEAUMONT, TEX.—J. F. Keith informs us that J. C. Ward, Jas. F. Ward, V. Wiess, T. H. Langham and J. F. Keith recently obtained a franchise for building an electric street railway in this city. A company has

not yet been organized, but will be in a few days, after getting the details of the privileges finally arranged with the city authorities. The above parties are all stockholders in the Beaumont Ice, Light & Refrigerator Co., of Beaumont. In this plant there are ample buildings and boiler and engine power enough to supply the power for the electric cars, but a suitable dynamo will possibly have to be added. Some practical ideas about the construction and equipping of a railway proper are solicited.

BOULDER, COLO.—The council has granted a street railway franchise to Guy D. Duncan and others. Any street may be used, provided the consent of a majority of the property owners be first obtained.

PORT ANGELES, WASH.—John Cain, E. W. Challis and Geo. H. Clementson have petitioned the city for right to construct and operate a street railway along Liberty St., from Railroad Ave. to Front and other streets.

PASADENA, CAL.—An ordinance has been passed by the trustees granting to Geo. B. Leighton the right to construct and operate an electric street railway on certain streets in Pasadena. H. Dyer, Cy. Clk.

TORONTO, ONT.—It is reported that the Toronto St. Ry. Co. is considering the advisability of extending the Toronto & Scarboro Ry. seven miles from its present terminus, to the west side of the Highland Creek hill. James McDougall, Engr.

SHANGHAI, CHINA.—Consul-General Goodnow, of Shanghai, reports that the construction of an 18-mile overhead wire and trolley street railway is projected for this city. A concession is to be granted to a company, to be known as the Shanghai Traction Co., and will provide for three different routes.

ELECTRIC LIGHT AND POWER.

NEWPORT, R. I.—The plant of the Newport Golf Club, together with the pumping station, was destroyed by fire Oct. 3, causing a reported loss of about $9,000.

ALBION, N. Y.—The board of trustees of the State House of Refuge, it is stated, is considering the question of building a plant.

CENTRAL ISLIP (L. I.), N. Y.—The Commercial Construction Co., 1 Madison Ave., New York, has been awarded the contract, at $27,825, for electric wiring, etc., for the 36 new buildings at the Manhattan State Hospital, Central Islip.

EAST SYRACUSE, N. Y.—The franchise for plant recently granted to M. C. Mulford, of Syracuse, has become void, on account of Mr. Mulford not giving the $5,000 bond within 30 days.

PORT CHESTER, N. Y.—Press reports state that the Port Chester Electric Lighting Co. has purchased the plant and franchises of the Westchester Gas & Electric Co., and will begin in a short time to build a new plant to supply Port Chester, Rye, Harrison and Mamaroneck. Capital stock, $50,000. William E. Ward, Pres.; J. Addison Johnston, Vice-Pres.; William L. Ward, Treas. Walter S. Comby, Secy., writes us that it has not yet been decided when the question of building the new plant will be taken up.

WORCESTER, N. Y.—John Van Benthuysen has been awarded a contract to light this place; the plant to be in operation by Jan. 1.

CAMDEN, N. J.—Bids are asked until Oct. 17 for lighting the streets with electricity for a term of one, three or five years, beginning July 1, 1899. Chn. Com., Chas. C. Southard.

SEA ISLE CITY, N. J.—Walter Sexton, Pemberton, N. J., has submitted the lowest bid for lighting this place with electricity. Mayor Sickles has appointed Councilmen Whittington and Grumley to arrange the contract.

DUNCANNON, PA.—John E. Graybill, York, Pa., has been awarded the contract for constructing the plant at this place. It will have a capacity for 1,000 incandescent and 12 arc lights.

EAST MAUCH CHUNK, PA.—This place is reported to have voted to build a municipal plant.

FREDERICKSBURG, VA.—The committee on light of the council, Capt. T. McCracken, Chn., has presented a report recommending the building of an electric light plant to be owned and operated by the city. The report will be published and bids asked for, after which the matter will be voted on at a special meeting; estimated cost, $13,000. Mayor, A. P. Rowe.

GRAFTON, W. VA.—Bids are asked until Oct. 20 for the purchase of $10,000 of 5% 20-year electric light bonds. Chn. Com., O. G. Angir.

HINTON, W. VA.—The Wilson Aluminum Co., 97 Cedar St., New York, is reported to have begun the construction of a plant for developing the power of the Kanawha Falls and the New River Falls, several miles from this place.

GREENSBORO, N. C.—Bids are asked until Nov. 15 for lighting the streets with electricity for three or more years from Jan. 1. There will be required 70 or more 1,200-c. p. arc lights for city use. Commercial lighting will be wanted. Population, 10,000. Chn. Com., B. H. Merrimon.

SUMTER, S. C.—Bids are asked until Dec. 1, for furnishing this place with 37 2,000-c. p. arc lights for a term of 10 or 15 years; also for furnishing, if necessary, 160 incandescent lights for the opera house. Cy. Clk., C. H. Hurst.

WHITESBURG, GA.—We are informed that the Sewell Paper Co. wishes to purchase a 50-light dynamo, which will also be used to operate a pump 1,200 yards away for pumping water. Prices are wanted for furnishing and for putting in the dynamo.

CRESCENT CITY, FLA.—W. L. McLeod, Pres. Council, writes us that a franchise has been granted to the Pierpont Mfg. Co. Work on the plant is to be begun within 90 days from Sept. 26, the date of signing franchise.

FLORENCE, ALA.—J. C. Rea, Mgr. Florence Milling Co., writes us that bids are wanted at once for furnishing certain machines for the proposed light plant for its mill. There will be wanted a dynamo and lamps. The power will be taken from the machinery already in place. There will be required 50 16-c p. lights.

OPELIKA, ALA.—Press reports state that the council proposes to build a municipal plant in time to light the city at the expiration of the contracts with the Opelika Electric Light & Power Co.

STURGIS, KY.—The question of electric lighting is being considered.

CAMBRIDGE, O.—Bids are asked until Oct. 10 for furnishing eight arc lights for a term of five years. Cy. Clk., T. R. Deseim.

DAYTON, O.—A new company will soon apply for a franchise for lighting this city with electricity. W. C. Henning, of Henning & Henning, Lawyers, Callahan Bank Bldg., Dayton, may be addressed.

GERMANTOWN, O.—L. S. Crickmore, Mayor, writes us that G. L. McKibben, Van Wert, O., has been engaged to prepare plans and specifications for a plant.

THORNTOWN, IND.—W. E. Young, Clk., writes us that it is doubtful if a plant is built in this place, reported as being considered.

TIPTON, IND.—J. S. Tarkington, Kokomo, Ind., has purchased the plant of the Tipton Electric Light Co., and, it is stated, will extend it.

ST. LOUIS, MICH.—Parker Merrill, Mayor, and J. R. Wilson, City Clerk, will ask the board of supervisors for permission, Oct. 21, to construct a power dam across Pine River. The dam is to be 13½ ft. high above bed of stream, to be built of piles, timber, etc.; to be an overflow dam, with apron at least 200 ft. wide, with intake and tailrace; to have a shute 10 ft. wide for the passage of logs and timber in the middle of the river, and to have a fish-shute, as provided for by law.

WYANDOTTE, MICH.—The question of building a municipal plant is being considered, according to reports.

KENOSHA, WIS.—The Milwaukee, Racine & Kenosha Electric Co. has applied for a new franchise. Mayor Pettit may be addressed.

MARINETTE, WIS.—Harry McCallum, Marinette, is reported to have made a survey of the water power of the Peshtigo River for H. Zech, of Crivitz, Wis.

BURLINGTON, IA.—The council is considering plans for redistricting the city and changing the lights. There are at present 131 arc and 290 incandescent lights, while under the new arrangement there would be 233 arc lights of 2,000 c. p. Mayor Naumann may be addressed.

SHERIDAN, MONT.—The council has granted Mr. Quirk a franchise for a plant; it to be completed in a month.

WYNNE, ARK.—Bids are asked until Oct. 15 for constructing a plant and water-works, to cost about $15,000. Cy. Recdr., Geo. W. Eldridge.

SENECA, MO.—The question of lighting this place with electricity is being considered by the Brodrick Realty Co.; population, 1,500.

WHARTON, TEX.—G. C. Gifford is reported as arranging for the construction of a plant and water-works for this place.

TEKOA, WASH.—The plant owned by Frank Mahoney and Edward Mahoney was destroyed by fire Sept. 20, causing a reported loss of about $1,500.

PORTLAND, ORE.—The council has awarded the contract for lighting the streets for two years from April 1, 1899, to the Portland General Electric Co. Gen. Mgr., H. W. Goode.

LONG BEACH, CAL.—The building of a plant to cost about $12,000 is being urged by Mayor Johnson.

LAKE MEGANTIC, QUE.—The question of building a plant is being considered by the council, according to reports.

MONTREAL, QUE.—The Lachine Rapids Hydraulic & Land Co., Montreal, is reported to have been awarded the contract for furnishing power to the plant of the Standard Light & Power Co., 11 Chenneville St. A number of improvements will be made to the plant. Supt. L. R. H. & L. Co., R. S. Kelsch.

PORT ARTHUR, ONT.—Edward S. Janison, Arch., 151 La Salle St., Chicago, Ill., is making efforts to have a power plant and canal built above the Ecarte Falls on the Kaministiqua River; estimated cost, $1,000,000.

TORONTO, ONT.—Bids are asked until Nov. 9 for supplying electric energy, to be used for electric lighting, power, etc., and for furnishing the machinery and for installing a complete plant, as described in our advertising columns. Chn. Bd. of Control and Mayor, John Shaw.

EAST LONDON, CAPE OF GOOD HOPE, AFRICA.—It is stated that this city wants bids for lighting the streets by electricity. Population, 10,000.

JOHANNESBURG, TRANSVAAL, AFRICA.—It is stated that the council is raising a loan of $750,000 for extending the city plant, etc. The new plant to be ordered out of this loan comprises a carburetted water-gas plant, two sets of 300-K-W. three-phone generators, with compound condensing engines and boilers of 600 HP.; two direct-coupled exciters of 30 K-W. each, condensing plant and other accessories. British, German and American competition will be considered.

NEW COMPANIES.—Eureka Electric Co., Chicago; $10,000; J. Kusel, Arnold Cohn, H. J. Kusel.

Georgia Lighting & Heating Co., Atlanta, Ga.; $100,000; Pres. and Mgr., Col. J. F. Burke; Secy. and Treas., R. J. Thurmond.

Dowd Electrical Co., Albany, N. Y.; $100,000; Charles Henry Fitch, of Pepperell, Mass., and four others.

Kenova Industrial Co., Charleston, W. Va.; $1,000,000; W. B. Campbell, Philadelphia, Pa.; Henry Kyd Douglas, Hagerstown, Md.; Walter H. Doyle, Norfolk, Va.; Joseph A. Gale, Roanoke, Va.; W. H. Travers, Charlestown, W. Va.

Easton Power Co., Easton, Pa.; $200,000, with $20,000 paid in; Treas., Arthur E. Childs, Boston; Alfred Clarke, Lowell, Mass.; Wm. O. Hay, Easton, Pa.

North Hudson Light, Heat & Power Co., Hoboken, N. J.; Albert B. Carlton, 124 Broad St., Elizabeth, N. J.; Frank M. Stillman, Rahway, N. J.; Samuel Hathaway, Jersey City; Arthur K. Bonta, 200 11th St., Hoboken.

McKinney Electric Light & Motor Power Co., McKinney, Tex.; $17,000; L. A. Scott, J. P. Nenney, D. T. Perdue.

Kison Hydro-Carbon Light & Heat Co. of Arkansas, Little Rock, Ark.; $500,000, with $125 paid in; the light is an invention of Missouri parties; H. W. Perry, Pres.; E. L. Brown, Maxwell Coffin, J. M. Steward, Ashley Cockerill.

New Jersey-Washington Light Co., 7 Rilsam Bldg., Trenton, N. J.; $100,000, with $1,000 paid in; E. Raymond Perrine, New York; T. R. Allen, Trenton; N. W. Black, Cumbus, N. J.; S. W. Semple, Burlington, N. J.

BRIDGES

BOSTON, MASS.—Bids are asked until Oct. 10 for two masonry abutments and masonry pier for the bridge on the Columbia Road. B. W. Wells, Supt. Sts.

NIAGARA FALLS, N. Y.—S. F. Arkush, Cy. Clk., informs us that nothing definite has yet been decided for the proposed bridges at Main, Sixth and Pine Sts.

CAMDEN, N. J.—Bids are asked until Oct. 12 for repairing the turntable of the Federal St. draw bridge over Cooper's Creek. Dr. J. B. Davis, Chn. Com.

JERSEY CITY, N. J.—Mortimer Lampson, Comr. St. and Water Bd., has had plans prepared for a proposed viaduct on Communipaw Ave. to extend from Monitor St. to Phillip St., about 1,000 ft.; estimated cost, $90,000.

SOMERVILLE, N. J.—The council has awarded a contract to the Berlin Iron Bridge Co., East Berlin, Conn., for constructing an iron truss bridge of 60-ft. span and 14-ft. roadway.

LACEYVILLE, PA.—A company has been organized by Dr. D. W. Sturdevant, Pres., Geo. L. Johnson, Vice-Pres., John B. Edwards, Secy. and others, for the construction of a bridge at this place, for which the contract has been awarded to the Horseheads Bridge Co., Horseheads, N. Y., at $30,000.

PITTSBURG, PA.—Bids are asked until 12 m., Oct. 7, for refilling approaches and masonry work on certain bridges. W. E. Thompson, County Controller.

TUNKHANNOCK, PA.—Bids are asked by the county commissioners until Oct. 8 for the abutments of the Meshoppen Creek bridge.

SALEM, VA.—Bids are asked until Oct. 22 for constructing two iron bridges across Mason's Creek. J. C. Langhorne, Chn. County Comrs.

DOBSON, N. C.—The county commissioners will reconstruct the iron bridge over Fish River, between Mt. Airy and Dobson.——The floods have destroyed a number of small trestles and bridges on the Northwestern Division of the Southern Ry., in Surry, Wilkes and Forsyth counties.

VAUCLUSE, S. C.—Bids are asked until Oct. 14 for rebuilding a bridge on the Vaucluse & Graniteville Road. Thos. B. Raborn, Supervisor, Aiken, S. C.

CLEVELAND, O.—Bids are asked until Oct. 12 for constructing a stone arch culvert with retaining walls, etc., on Euclid Ave., over Nine-Mile Creek. J. C. Dorn, Clk. County Comrs.

KENTLAND, IND.—Local papers state that five new bridges will be constructed this fall by the county commissioners.

GRAND RAPIDS, MICH.—Reports state that the chief engineer of the Toledo, Saginaw & Muskegon R. R., Mayor Balbirnie and City Attorney Sessions have decided to take immediate steps for a bridge or a grade crossing at Biedler St.

HART, MICH.—C. B. Stevens, Village Pres., informs us that a contract has been let to the Groton Bridge & Mfg. Co., Groton, N. Y., by the township, for building a 1,200-ft. steel bridge 20 ft. wide, on steel tubing and concrete substructure, to cost $6,000.

LANSING, MICH.—Bids are asked until Oct. 10 for erecting the old Michigan Ave. bridge at Kalamazoo St., on a new substructure. An amount of new material, bolts, rods, castings, etc., will be required. Jasper C. Davis, Cy. Engr.

GALESBURG, ILL.—It is reported that the county will construct a new bridge near Abington.

MOLINE, ILL.—Bids are asked until Nov. 30 for designs and for the construction of a high bridge across Rock Creek; also for removing the old structure, as stated in our advertising columns. Maj. W. L. Marshall, U. S. Engr., 1637 Indiana Ave., Chicago, Ill.

DES MOINES, IA.—G. A. Eberhart, Bd. Pub. Wks., informs us that nothing will be done in regard to the proposed bridge over the Des Moines River at East Sixth St., until after April 1, 1899. The abutments may then be contracted for.

ROYALTON, MINN.—Geo. E. Wilson informs us that there is some talk of building a bridge but nothing more.

ST. PAUL, MINN.—A. Munster, Engr. Bridges, informs us that bids were wanted Oct. 4 for constructing a combination bridge, one span 168 ft. long and 32 ft. wide, and 178 ft. of trestle, on masonry foundation.

PARKER, S. DAK.—Bids are asked by the county commissioners until Oct. 11 for constructing four steel bridges over the Vermillion River, according to reports.

COLFAX, WASH.—Bids are asked until Oct. 7 for furnishing the material and constructing a steel bridge of one span 140 ft. long and 20 ft. wide over the North Palouse River, in Palouse City, and a bridge across Union Flat Creek. John Tobin, County Audr.

SEATTLE, WASH.—An ordinance has been passed and referred to the street committee for two bridges on Jackson St.

AUBURN, CAL.—Bids are asked until Oct. 7 for constructing a bridge over the Central Pacific R. R., near Colfax Ave. Lee E. Wallace, Cy. Clk.

SAN JOSE, CAL.—The county surveyor has been authorized to prepare plans for a bridge across Isabel Creek, on the Kincaid Road.

WOODLAND, CAL.—The proposition to repair the bridge across Putah Creek at Winters, or to construct a new steel structure, to cost from $15,000 to $20,000, has been laid over until some future time. No agreement could be made between the county commissioners and the railroad company interested, according to reports.

RATHDRUM, IDAHO.—Bids will soon be asked by the county commissioners for a bridge on the Priest River, according to reports.

TORONTO, ONT.—The council is considering the question of a new bridge over the Don River at Queen St. Chas. H. Rust, Cy. Engr., will report on the cost of a low level bridge.

BUILDINGS.

BOSTON, MASS.—Mead, Mason & Co., 13 Exchange St., Boston, have been awarded the contract for erecting the East Boston high school building, at $203,006.

BROCKTON, MASS.—McIlvain, Unkefer & Co., of Pittsburg, were the lowest bidders, Sept. 28, for the erection, except heating plant and electric wire conduits, of the public building in this city, at $43,353; time, 12 months. Other bidders were: Daniel O'Connell & Son, Holyoke, Mass., $52,000, time, Oct. 1, 1899; Prescott H. Jackson, Brockton, $57,321, 12 mos.; Conners Bros., Lowell, Mass., $57,210, 12 mos.; McNell Bros., Boston, $58,900, 12 mos.; Mackie Bros., Brockton, $56,800, 11 mos.; Geo. Howard, Brockton, $51,839, 1 year; Norcross Bros, Worcester, Mass, $63,444, 12 mos. Lowest bid accepted.

BROOKLINE, MASS.—Bids are asked until Oct. 6, at 5 p. m., for the erection of a building for police and court purposes at Washington and Prospect Sts. P. W. Lawrence, Chn. Bldg. Com.

NEW HAVEN, CONN.—Bids are asked until Oct. 15 for erecting the New Haven Harbor breakwater light station, as stated in our advertising columns. Lieut.-Col. D. P. Heap, U. S. Engr., Tompkinsville, (S. I.), N. Y.

WATERBURY, CONN.—Bids are asked until Oct. 13 for the erection of the Drayer St. school building. The architect, Theodore B. Peck, 65 Bank St., Waterbury, informs us that the building will be of brick and wood, 73 × 123 ft., two stories in height, with a slate roof, and heated by steam. Augustus I. Goodrich, Chn. District Com.

BINGHAMTON, N. Y.—Burr W. Mosher, Cy. Clk., informs us that Treacey Farley was the lowest bidder, Sept. 28, for erecting an isolation ward for the city hospital, at $4,050. Bids were also received for this work or for heating and plumbing apparatus, from E. L. Sullivan, Youngs & Bogart, John Schulte, D. J. Malone, C. E. Boughton & Co., Shapley & Wells, and Gaylord & Eitapenc.

BUFFALO, N. Y.—Reports state that the U. S. lighthouse board has decided to recommend Congress to appropriate $50,000 for the establishment of a new lighthouse supply station near Buffalo.

CENTRAL ISLIP (L. I.), N. Y.—Bids were received by the Manhattan State Hospital, Pres., Henry E. Howland, 1 Madison Ave., New York, Sept. 22, for the construction of four groups of hospital buildings at this place. McGibben & Son, of Brooklyn, were the lowest bidders for non-fireproof construction, at $656,370; A. Pasquini, of Albany, was the lowest for fireproof construction throughout, at $823,208; and Miles Leonard, of Binghamton, N. Y., the lowest for fireproof construction of three floors and non-fireproof roof, at $734,810, and for fireproof construction of central buildings and connecting corridors, at $679,707. The Artesian Well & Drilling Co., of New York, was the lowest bidder for the water supply and distribution, at $28,720; James Fay, New York, lowest for plumbing and drainage, at $49,750; the Commercial Construction Co., 1 Madison Ave., New York, lowest for the engines and generators, at $11,800, and for electric wire and fixtures, at $27,825. E. Rutzler, 178 Centre St., New York, is also said to have been the lowest bidder for the heating apparatus, at $240,292.

MOUNT VERNON, N .Y.—It is reported that the citizens of this city are agitating the erection of a new library building, to cost about $25,000.

NEW YORK, N. Y.—Plans are being prepared, according to reports, for a new medical department building, for Columbia University, at 1st Ave. and 27th St., to cost about $500,000. Archs., McKim, Mead & White, 160 5th Ave.——Plans have been filed by the city for a 3-story brick and stone engine house, at 119 Maiden Lane, to cost $55,000. Archs., Horgan & Slattery, 1 Madison Ave.; by Gottfried Piel, 333 West 76th St., for a 4-story and attic frame dwelling, at 87th St. and Riverside Drive, to cost $60,000. Arch., Hubert Drosser, 2 Stone St; by W. E. Thompson, 327 West 70th St., for six 4-story brick dwellings, at 329 to 339 West 70th St., to cost $56,000. Arch., J. W. Davison, 225 Cambreling Ave.; by F. V. Gaines, 103 West 93d St., for four 5-story brick flat buildings, on 135th St., near Brown Place, to cost $88,000. Arch., Harry T. Howell, 748 East 138th St.; by Emil Greene, 182 East 72d St., for four 5-story brick flats, on 117th St., near 5th Ave., to cost $104,000. Arch., Edward Wenz, 1491 3d Ave.——E. F. Dobson & Co., 1133 Broadway, is stated to have received the contract for erecting a 7-story apartment building on Central Park West, near 94th St., for William Call, to cost $115,000. Arch., Jas. E. Ware & Son, 3 West 29th St.

NEW YORK, N. Y.—We are informed that the following bids were received Oct. 3 for a heating and ventilating apparatus and electric lighting plant for public school No. 40: Blake & Williams, $30,290; E. Rietzler, $30,225; Francis Bros. & Jellett, $30,950; The Wells & Newton Co., $30,175; Francis Dobson, 218 East 42d St. (accepted), $29,350; Evans, Almirall & Co., $30,150. The bids for a similar plant in public school No. 166 were as follows: Francis Bros. & Jellett, $33,910; Francis Dobson (accepted), $32,500; Blake & Williams, $33,397; James Curran Mfg. Co., $33,975; E. Rietzler, $33,297; The Wells & Newton Co., $33,740; Evans, Almirall & Co., $34,303.

CAMDEN, N. J.—Bids are asked by the supervising architect, Washington, D. C., until Oct. 27, for the construction, except heating apparatus and electric wire conduits, of the U. S. building in this city, as stated in our advertising columns. Archs., Rankin & Kellogg, 1024 Walnut St., Philadelphia, Pa.

CAMDEN, N. J.—W. H. Day, of Camden, was awarded the contract, Sept. 30, for erecting the new high school building at Haddon and Newton Aves., at $52,600. C. W. Cramer bid lowest on the heating apparatus, at $4,000. Arch., Thomas Stephens, Masonic Temple.

AMBLER, PA.—The Trinity Episcopal Church of this place is erecting a new church building, to cost about $50,000.

HOMESTEAD, PA.—The school board has decided to erect a new $50,000 school building in the 2d Ward.

PHILADELPHIA, PA.—Plans have been prepared for a new $30,000 colonial dwelling house, to be erected on Powelton Ave., West Philadelphia, for C. C. Febiger. Archs., H. W. Sellers and Chester Kirk.——Reports state that J. E. & A. L. Pennock will soon erect a 3-story brick, stone and iron stable for the Gas Improvement Co., at 9th and Diamond Sts., to cost $55,000.——A new memorial home will soon be completed in Germantown for the St. Joseph's Female Orphan Asylum, at Church Lane and Stenton Ave., to cost about $65,000.

PHILADELPHIA, PA.—Bids were received by the supervising architect, Washington, D. C., Oct. 3, for the construction of the superstructure, except interior finish, of the U. S. Mint building in Philadelphia. There were 15 bidders. The propositions of Norcross Bros., of Worcester, Mass., at $480,000 for marble, and of Charles McCaul, of Philadelphia, at $441,743 for Mount Desert granite, were the lowest.

YORK, PA.—Bids are asked by the commissioners of York county, at the office of the Security Title & Trust Co., until Oct. 20, for the installation of a steam heating, mechanical ventilating and power plant in the county court house. Arch., J. A. Dempwolf, York.

OAKLAND, MD.—The commissioners of Garrett county have decided to build a new jail building, with steel cages, etc.

NEWPORT NEWS, VA.—The Pauly Jail Mfg. Co., of St. Louis, Mo., is said to have been awarded the contract for the erection of the new city jail and emergency hospital; cost, about $16,000.

NORFOLK, VA.—Bids will soon be asked, according to reports, for the erection of the proposed U. S. court house in this city. Archs., Wyatt & Nolting, 301 North Charles St., Baltimore, Md.

BUCKHANNON, W. VA.—We are informed that bids were asked until Oct. 5 for a jail and sheriff's residence for Upshur county. J. J. Morgan, County Clk.; Harrison Albright, Arch., Charleston, W. Va.

COLUMBUS, O.—The following lump bids are said to have been received by the capitol commission, Sept. 24, for erecting the new addition to the capitol building in this city. Archs., Hannaford & Sons, of Cincinnati, O.:

Andrew Doll	$309,300
N. C. Hinsdale, Detroit, Mich	318,150
P. H. McCormick & Co.,	304,920
L. D. Beaman & Co.	325,950
J. A. Rowe & Son	297,800
Nicholl & Carr	330,552
Wittenmeyer Bros., Columbus	354,753
W. H. Ellis, Washington, D. C.	292,000
James Westwater, Columbus	311,000
E. M. Campfield & Co., Richmond, Ind.	394,000
George Schneider, Columbus	310,000
Norcross Bros., Worcester, Mass.	424,224

The commission awarded contracts, Sept. 28, to 13 different bidders, as follows: Daniel W. McGrath, Columbus, for excavation, $2,240; stone masonry, $12,000; fireproofing, $15,237; Scully & Moss, Cincinnati, brick work, $20,700; plastering, $9,900; cement work, $5,493; F. & J. Wittenmeyer, Columbus, cut stone work, $80,000; New Columbus Bridge Co., Columbus, iron work, $43,450; S. & J. Osborne, Jr., & Co., Cincinnati, asphalt, $4,000; Pelt & Schuster Co., Cincinnati, sheet metal work, $1,731.54; Norcross Bros., Cleveland, marble work, $34,700; August Roehr, Bucyrus, carpenter work, $17,770; Mosaic Tile Co., Zanesville, mosaic work, $6,929; E. & J. McNamara, Columbus, plumbing, $9,958; gas piping, $1,027.56; N. D. Beard, Columbus, painting and glazing, $6,250; Pittsburg Heating Supply Co., Pittsburg, steam heating, $4,971; Electric Supply & Construction Co., Columbus, electric light wiring, $3,194.

LANCASTER, O.—Bids are asked by the trustees of the Boys' Industrial School, until Oct. 20, for the erection of a cottage. Secy., C. D. Hilles; Archs., Richards & McCarty, Columbus, O.

DETROIT, MICH.—Plans are being prepared by Nettleton & Kahn for a nurse's home for Grace Hospital, to be erected at Willis Ave. and John R. St.——Spitzley Bros. were the lowest bidders for erecting the new G. A. R. memorial building on the Cass market site, Sept. 24, at $40,382, being for Bedford cut stone and ashler.

CHICAGO, ILL.—The board of education has been granted a permit to erect a new school building, at 627 North Oakley Ave., to cost $85,000; Rosenbaum Bros., to erect a brick elevator, at 457 to 465 85th St., to cost $60,000; Henry Smith, to erect a 4-story brick apartment building, at 6154 to 6158 Madison Ave., to cost $40,000.—Plans are being prepared for a 3-story brick and stone apartment building, to be erected at Vincennes Road and Lafayette Ave., for T. A. Cantwell, to cost $35,000. Archs., Healy & Gilbert, 6305 Cottage Grove Ave.

CHICAGO, ILL.—Bids are asked until Oct. 11 for a heating apparatus for the new pumping stations at Springfield Ave. and at Central Park Ave. L. E. M'Gann, Comr.

DANVILLE, ILL.—Bids are asked until Oct. 12 for putting in place complete the heating and ventilating apparatus, plumbing apparatus and gas piping, laundry machinery, engine, etc., in the laundry building at the Danville branch of the National Home for D. V. S. Arch., W. C. Gunnell.

DUBUQUE, IA.—Bids will soon be asked, according to reports, for erecting the new seminary building for the Theological Seminary, to cost about $250,000. Archs., Buechner & Jacobson, St. Paul, Minn.

ELDORA, IA.—It is reported that the proposition to issue $45,000 in bonds for the erection of a new court house will be voted upon at the November election. Audr., C. R. Lyon.

DE SMET, S. DAK.—The contract for heating the new court house has been let to Hess & Brown, of Watertown, S. Dak., at $1,317. Other bidders were: Pond & Hasey, at $1,645, and the Archambe Heating Co., at $1,523.

KANSAS CITY, MO.—The Portsmouth Investment Co. is said to contemplate the erection of a new auditorium building in this city, to cost $50,000. It is reported that the contract for erecting the building has been let to J. W. Wood, of Chicago.

SPRINGFIELD, MO.—The St. Louis & San Francisco Ry. Co. proposes to erect a $40,000 hospital building in this city, provided that the site be donated.

ST. LOUIS, MO.—A fire in this city, Sept. 28, destroyed the building at 410 North 4th St., occupied by C. & W. McClain, causing a reported loss of about $80,000.——Reports state that the St. Louis Realty & Amusement Co. will erect a new theater building at Franklin and 7th Sts., to cost about $125,000.——T. J. Harbaugh has been granted a permit to erect several store and flat buildings at Taylor and Finney Aves., to cost about $50,000.

COLORADO SPRINGS, COLO.—A fire in this city, Oct. 1, damaged the Antlers Hotel and adjoining buildings, causing a reported loss of $1,000,000.

SEATTLE WASH.—The Great Northern Ry. Co. has been granted a permit to erect a 2-story brick building on Jackson St., near 2d Ave., to cost about $70,000.

TREHERNE, MAN.—The business portion of this village was burned Sept. 27, at a loss of about $50,000.

MEXICO, MEX.—It is reported that Milliken Bros. have been awarded the contract for furnishing the structural iron for the new building to be erected here for R. Booker & Co.; total cost, $150,000. Archs., De Lemos & Cordes, 130 Fulton St., New York.

TOKIO, JAPAN.—Press reports state that M. Manizu, an architect in the service of the Japanese government, is in New York, and that he desires all information and circulars regarding the heating and ventilating of buildings. Address, care of Y. Wooyeno & Co., 540 Broadway, New York.

WATER-WORKS.

HOLYOKE, MASS.—Jos. L. Tighe, Engr., Water Dept., has submitted a report for a new reservoir to supply the Highlands; estimated cost, $50,000.

NORTHFIELD, MASS.—We are informed that H. Osborne, of Northampton, Mass., has been awarded the contract for building an intake reservoir for the water-works for the Mount Hermon School, Northfield. The Deane Steam Pump Co., Holyoke, Mass., has the contract for the pumps, and the Flint Building & Construction Co., Monson, Mass., has the contract for building the supply reservoir and laying the pipe. The school has 700 pupils. Engr., E. C. Davis, Northampton, Mass.

TURNER'S FALLS, MASS.—The Geo. F. Blake Mfg. Co., 93 Liberty St., New York, is reported to have been awarded the contract for furnishing a new pump at the water-works.

WEST SPRINGFIELD, MASS.—At a town meeting held Sept. 27 the water commissioners were directed to employ an engineer to report on methods for a new water supply, etc.; estimated cost of new works, $25,000. Chn. Com., N. T. Smith.

ALDEN, N. Y.—Bids are asked until Oct. 18 for furnishing the materials and for building works to cost about $18,000, as stated in our advertising columns. Engr., J. F. Witmer, 705 Ellicott Bldg., Buffalo, N. Y.; Clk., Albert Yager.

BAINBRIDGE, N. Y.—J. Warren Lamb, Cooperstown, N. Y., is preparing plans for the proposed city works, for which $22,000 in bonds were voted Sept. 10.

BUFFALO, N. Y.—The commissioners of public works received the following bids Sept. 29 for a 20-in. water pipe across Buffalo River at Ohio St.—Hingston & Woods, all the work, $12,025; George W. Moore, laying pipe, etc., $15,494; Lake Erie Boiler Works, pipe, $2,895; Charles A. Haskin, $16,000; Farrar & Trefts, furnishing pipe, $2,343; Buffalo Dredging Co., laying the pipe, $9,750.

CHURCHVILLE, N. Y.—Sage & Potter, of this place, have submitted a proposition to furnish this town with water. The town will lay the pipe and erect the stand-pipe. The contract will be for five or ten years.

EAST HAMPTON (L. I.), N. Y.—A company is about to be organized to build works for this place. The capital stock will be $20,000, of which amount $14,000 has been subscribed. T. J. Gardiner, B. H. Van Scoy and Geo. A. Eldredge are interested.

HARRISVILLE, N. Y.—F. W. Werner, Chn. Com., writes us that J. W. Siegrist, Utica, N. Y., has been awarded the contract for building the works at $6,702.

BRADFORD, PA.—Bids are asked until Oct. 24 for constructing a 92,000,000-gallon storage reservoir, as described in our advertising columns. Secy. Water Comrs., E. N. Braddock.

KNOXVILLE, PA.—Bids are asked until Oct. 12 for furnishing the materials and for building works, as stated in our advertising columns. Engr., Howard Murphy, 200 South 3d St., Philadelphia; Clk., Henry A. Ashton.

BOONSBORO, MD.—W. L. Given, Burgess, writes us that the contract to supply this town with water for fire purposes has been let to the Boonsboro Water Co., who will build the works. The contract for the materials has been let and the construction of the reservoir begun. The contract for furnishing the pipe has been let to the Southern Pipe Co. Engr., H. G. Frederick, Boonsboro, Md., and Millersburg, Pa.

INDIAN HEAD, MD.—Bids are asked until Oct. 8 for furnishing and constructing a steel stand-pipe at the Naval Proving Ground, Indian Head. Chas. O'Niel, Ch. Bureau of Ordnance, Navy Dept., Washington, D. C.

WILLIAMSPORT, MD. — G. W. McCardell, Editor "Leader," writes us that the town is trying to secure plans for works. The town voted to issue bonds for works and an electric light plant, but they have not yet been issued. Population, 2,000.

COLUMBIA, S. C.—W. B. Smith Whaley, Chn., Caldwell Robertson and E. W. Robinson are on the committee to take charge of the letting of contracts for the new works and a sewerage system and to superintend the construction of the same. The contracts will probably be let in a short time; estimated cost, $450,000. Cy. Engr., C. C. Wilson.

GALLATIN, TENN.—D. K. Spillers, Chn. Com., writes us that this place voted Sept. 24 to build works, for which $35,000 will be appropriated. The water supply will be secured from the Cumberland River, three miles distant.

ROCHESTER, KY.—This place will vote Oct. 14 on the question of issuing bonds for works, according to reports.

LEWISVILLE, IND.—A. M. Potter, Jr., Clk., writes us that this village will put in works in the spring. There will be required a 20,000-gallon tank on a tower 60 ft. high.

NEW ALBANY, IND.—The Home Crystal Water Co. was incorporated Sept. 27 with a capital stock of $200,000. The board of directors is as follows: Peter Arlund, Copenhagen, Denmark; George Borgerding, Frank Shefold, Engr., New Albany; Ed. M. Bir, H. T. Sutton, G. E. D. Waggoner and L. Bloomfield. This company was recently granted a franchise by the council, noted in our issue of last week. The company has agreed to begin to furnish water to the city within a year.

TRAVERSE CITY, MICH.—This city has voted to issue $100,000 in bonds for municipal works, according to reports.

CHICAGO, ILL.—Bids are asked until Oct. 11 for furnishing and constructing a steel sheet with four stuffing boxes and glands for a well at the Springfield Ave. pumping station, and also for one at the Central Park Ave. Station. Comr. Pub. Wks., L. E. McGann.

CHICAGO, ILL.—Bids are asked until Oct. 13 for furnishing water tanks and connections for the Chicago Public Library Building. Secy., W. B. Wickersham, Public Library Bldg.

MELROSE PARK, ILL.—Bids are asked until Oct. 10 for furnishing the materials and for constructing works and laying the pipe. Engr., W. B. Ewing, 1706 Marquette Bldg., Chicago; Clk., Wm. Leeseberg.

MONMOUTH, ILL. — I. Trumbull, Chn. Water Com., writes us that the city has purchased ground near the railway and is about to build new works there and abandon the old plant. The council has appropriated $5,800 for work on it this year. It is probable that D. W. Mead, Rockford, Ill., will prepare the plans.

WHITEHALL, ILL.—It is reported that an election will be held Oct. 10 to vote on the question of issuing bonds for works.

BARABOO, WIS.—The Baraboo City Water-Works Co. has decided to increase the water supply from springs located about half a mile from the works. The improvements will be made mostly by the company and probably no contracts will be let. Cy. Engr., W. G. Kirckoffer.

MANILLA, IA.—The council has rejected the bids received by C. V. Campbell, Mayor, Sept. 19 for building works to cost about $3,000. The town will build the works.

OTO, IA.—The question of building works, it is stated, is being considered.

UTE, IA.—It is stated that the council is considering the question of building works at a cost of about $4,000.

WEBSTER CITY, IA.—Jno. E. Quackenbush, Webster City, has been awarded the contract at $3,000 for building a 100,000-gallon water tank on a steel tower 80 ft. high.

CRYSTAL, MINN.—Bids are asked until Oct. 15 for the purchase of $6,000 of 6% 20-year water bonds, according to reports. Chn. Com., W. C. Wilkinson.

ODESSA, MO.—This place is reported to have voted against issuing $10,000 in bonds for works.

WYNNE, ARK.—Bids are asked until Oct. 15 for furnishing the materials and for building the works and electric light plant, estimated to cost about $15,000. Secy. Bd. Pub. Impts., M. Holly; Cy. Recdr., Geo. W. Eldridge.

RODGERS, TEX.—Jos. S. Thompson writes us that work on the proposed plant will be begun about Oct. 15, it will cost about $5,000. Next year a pump will be put in at the artesian well.

WHARTON, TEX.—G. C. Gifford has been granted a 25-year franchise for new works and an electric light plant. It is stated that work will be begun at once.

NEW WHATCOM, WASH.—The council is stated to have made a survey for a new 24-in. water main 8,000 ft. long from Lake Whatcom, to take the place of a smaller main. The improvement will cost about $15,000.

THE DALLES, ORE.—Bids are asked until Oct. 10 for furnishing and laying 2,400 ft. of 12-in. cast-iron water pipe and also 4,120 ft. of 4 to 10-in. pipe, 11,000 lbs. of specials, 16 double-nozzle hydrants, etc. Clk. Water Comrs., Simeon Bolton.

LONG BEACH, CAL.—The question of building municipal works is again being considered; estimated cost, $20,000.

MONROVIA CAL.—Bids are asked until Oct. 15 for furnishing this place with a water supply, or for constructing works for the city. Clk., W. A. Walker.

SAUSALITO, CAL.—We are informed that the report to the town trustees recommends the construction of a new works by the town, to include a pumping plant with a daily capacity of 200,000 gallons, a 500,000-gallon service reservoir and 10 miles of distributing mains, the water to be procured from wells 1½ miles southwest of the town. Engr., M. M. O'Shaughnessy, Crocker Bldg., San Francisco, Cal.

TUCSON, ARIZ.—Press reports state as follows: The Tucson Water Co., notwithstanding the passage by Congress of an act to enable Tucson to raise money by sale of bonds

to build municipal works, is making preparations to enlarge its works. Sylvester Watts, Pres. Water Co., left a few days ago for the East to purchase material for the new works. The works will be changed from a gravity system to a steam plant. A 500,000-gallon stand-pipe will be erected on the highest place in town. The station will be equipped with a 2,000,000-gallon triple expansion and condensing pumping engine. There will be two boilers, each 66-in. shell and 18 ft. long. Test wells have been sunk 30 ft. and fine water has been developed. There will be ten of these wells.

GANANOQUE, ONT.—The question of improving the works and of building a sewerage system is being considered. Mayor, W. B. Carroll.

STIRLING, ONT.—H. S. Ferguson, Reeve, writes us that this place voted Sept. 23 to build gravity works at a cost of $20,000. It is probable that no work will be done until next summer. The water supply will be secured from Somerset Lake, nearly 300 ft. above the town and about two miles distant. Dr. Parker may be addressed.

WINNIPEG, MAN.—The council has decided to offer the English holders of the Winnipeg Water-Works Co.'s bonds $200,000 for the entire plant. This is understood to be final and calls for a release of all liabilities and encumbrances. The bondholders have asked $275,000.

ST. LAMBERT, QUE.—The St. Lambert Water-Works Co. has been incorporated to operate the works already built; capital stock, $100,000; incorporators, T. J. Drummond, Geo. E. Gudevil and Jos. T. McCall.

GLASGOW, SCOTLAND.—Press reports state that the following bids were received last month for furnishing this corporation with water pipe: R. D. Wood & Co., Philadelphia, 12-ft. lengths, $23,971; Robert Maclaren & Co., Glasgow, 9-ft. lengths, $24,274; Robert Laidlow & Son, 9 or 12-ft. lengths, $25,656; D. Y. Stewart & Co., 9 or 12-ft. lengths, $29,199. An amendment was proposed to divide the contract, giving $10,182 worth of it to R. D. Wood & Co., Philadelphia, and the balance to Robert Maclaren & Co., Glasgow. Robert Maclaren & Co. have declined to accept the contract on the conditions agreed to at the meeting. They state that their bid was for the entire contract and not for a fraction. If they accepted the contract as given they would have to add $3.12 a ton extra. Sir James Marwick, Town Clk.

IRRIGATION.

GERING, NEB.—Bids are asked until Oct. 8 for enlarging the Mitchell irrigation district canal, about 28,000 cu. yds. of material to be removed, according to reports. L. L. Raymond, Secy.

EVANSTON, WYO.—Asst. State Engr. C. Johnston has surveyed sites for reservoirs in Uinta county, to supply water to the ranches. A dam will be constructed near Iron Mountain 30 ft. high and 570 ft. long, another 20 ft. high and 430 ft. long and a reservoir on Horse Creek to cover about 10 acres. State Engineer Elwood Mead, Cheyenne, will examine the water rights claims.

BEAUMONT, TEX.—The Pine Island Irrigation & Canal Co., Beaumont, has awarded Contractor Jenkins a contract for a canal, including 300,000 cu. yds. of excavation, 3,800 yds. of flue work, boxing drains, etc.

ALBUQUERQUE, N. MEX.—J. B. Quigley & Co. will put in dams, reservoirs and ditches for irrigating their property, according to reports.

NEW COMPANIES.—Poso Canal & Irrigation Co., Bakersfield, Cal.; $100,000; H. E. Phillips, E. Browns, Spotteswood; E. O. Miller, J. G. Knox, Visalia.

Meadow Irrigation Co., Meadow, Utah; $7,128; Edwin Stott, John Nield, H. G. Lahrum, James M. Stewart and S. M. Smith.

Bingham Irrigation & Falls Co., Idaho Falls, Ida.; $50,000; to build a canal for irrigation and power purposes and a dam 12 ft. high across Snake River. Plans are being prepared by Charles Chapin, and work is to be commenced at once.

Mill Creek Reservoir Co., Woodside, Mont.; $5,000; to construct irrigation ditches to irrigate lands of the west side of Bitter Root River and to generate power to run mills; C. J. Moore, O. L. Kenney and others.

Lamar & Arkansas Ditch Co., Lamar, Colo.; $10,000; to irrigate in Bent and Prowers counties, and to control the Colorado & Kansas canal; Charles Maxwell, Adam Maxwell and C. C. Goddard.

Granite Reservoir & Irrigation Co., Salt Lake City, Utah; A. Brand, J. Boyce, A. W. Thompson and others.

Big Pine Irrigation Co., Big Pine, Cal.; $4,000, with $2,615 paid in; to store water for irrigation, etc.; Louis Schalten, Edward Reinhackle, C. L. Meyers, John W. McMurry and J. C. Crocker.

Calcasieu Irrigation & Rice Milling Co., Alexandria, La.; $500,000; to construct canals from Kinder to the Calcasieu River, to irrigate about 40,000 acres; W. F. Blackman, G. W. Bolton, E. J. Hardtner, A. Alberton, H. S. G. Gorsens, J. S. Sullivan, Joseph Levinall, of Alexandria, and G. O. Elms, of Opelousas.

Northwestern Irrigation Co., Kalispel, Mont.; $12,000; Joseph Frederickson, L. H. Bradburn and U. P. Shenfeldt.

SEWERAGE.

SOMERVILLE, MASS.—The aldermen have voted to build a separate house drainage system from the Poplar St. connection of the Metropolitan system; estimated cost, about $20,000. Aldermen Lamont and Kilmer may be addressed.

SPRINGFIELD, MASS.—The sewer committee has been asked to recommend the construction of a new sewer in Oak St., Indian Orchard, to cost about $8,000.

PROVIDENCE, R. I.—Bids are asked until Oct. 7 for constructing about 1,520 ft. of 60, 48 and 36-in. brick sewer. Comr. Pub. Wks., Robt. E. Smith.

NORFOLK, CONN.—This place is reported to have voted to issue $10,000 in bonds for new sewers.

ALBANY, N. Y.—Bids are asked until Oct. 17 for constructing sewers in four streets, and also for improving the drainage of Knox St. Clk. Bd. of Contract, Thos. J. Lanahan.

NEWBURG, N. Y.—The question of building a sewer in First St. is being considered. Aldermen Brown and Bullis may be addressed.

NEW YORK, N. Y.—Bids are asked by the department of sewers, 265 Broadway, until Oct. 19, for constructing a temporary private sewer in 18th Ave., between 57th and 75th Sts., for the drainage of the Disciplinary Training School.

WATERTOWN, N. Y.—The council has been petitioned to build a sewer in Washington St.

CAMDEN, N. J.—Bids are asked by the city clerk until Oct. 10 for building a sewer in Federal St.

NEWARK, N. J.—It is stated that Alexander Potter, 137 Broadway, New York, has submitted a report on the proposed trunk sewer system to tide water. It will be for the use of Newark, Irvington, Millburn and South Orange. It is reported that the system will cost, including the right of way, about $100,000. Chn. Joint Sewer Com., Robt. S. Sinclair, South Orange.

NEWARK, N. J.—Jos. D. Alessio has been awarded the contract for building the East Branch lateral sewers, at $12,951.

PASSAIC, N. J.—Bids are asked until Oct. 15 for constructing a 15-in. pipe sewer in Madison St. Chn. Com., Cornelius Kievitt.

STOCKTON, N. J.—It is proposed to build a 5-ft. brick sewer in Federal St., from Cooper Ave. to Cooper Creek; estimated cost, $7,500.

WOODBRIDGE, N. J.—Bids are asked until Oct. 10 for constructing sewers, as described in our advertising columns. Engr., C. C. Hommann, Perth Amboy, N. J.; Chn. Com., E. W. Christie.

ALLEGHENY, PA.—Bids are asked until Oct. 7 for constructing sewers and for paving in several streets. Dir. Pub. Wks., Robt. McAfee.

PITTSBURG, PA.—Bids are asked until Sept. 6 for constructing sewers and for paving, grading, etc., in a number of streets. Dir. Pub. Wks., Edward M. Bigelow.

SOMERSET, PA.—It is stated that this borough will issue $20,000 in bonds for a system. Secy. Council, R. E. Myers.

PRINCESS ANNE, MD.—The town commissioners are considering the question of extending the system.

COLUMBIA, S. C.—W. B. Smith Whaley, Chn. Com.; W. J. Murray and Robt. W. Shands are on the committee to let contracts for building the proposed system and the water-works. It is probable bids will be asked soon.

BUCYRUS, O.—The committee has recommended the construction of sewers in Elm and Prospect Sts.

DAYTON, O.—Bids are asked until Oct. 6 for building a storm water sewer in Loraine Ave. Pres. Bd. City Affairs, J. L. Baker.——Bids are also asked until Oct. 12 and 17 for storm water sewers in two streets.

GLENVILLE, O.—Bids are asked until Oct. 26 for the purchase of $21,000 of 6% sewer bonds. Mayor, Robt. C. Wright; Clk., I. C. Farley.

MARION, O.—Bids are asked until Oct. 7 for building 1,475 ft. of 15-in. pipe sewer. Cy. Clk., Jas. I. Beatty.

INDIANAPOLIS, IND.—Bids are asked until Oct. 12 for building a local sewer in La Salle St. Chn. Bd. Pub. Wks., M. A. Downing.

SHERIDAN, IND.—Specifications have been prepared for constructing about 3,800 ft. of 24 to 12-in. pipe sewers in 4th St. Engr., J. A. Nutchell; Pres. Bd. Trustees, Jas. E. Starbuck.

CHICAGO, ILL.—The engineering commission has completed its plans for the 95th St. sewer system by which the Calumet district is to be drained. It is understood that the plans contemplate an outlay of from $1,500,000 to $2,000,000. In view of the fact that there is at present a large number of workmen in this city out of employment, Mayor Harrison is anxious to have the work under way during the winter. L. E. McGann, Comr. Pub. Wks.

BELOIT, WIS.—Bids are asked until Oct. 11 for constructing sewers in several streets. Chn. Bd. Pub. Wks., E. S. Greene.

BURLINGTON, IA.—Bids are asked until Oct. 17 for constructing the foundation of the outfall of the Valley St. sewer; excavating about 1,000 cu. yds., riprap about 800 cu. yds., Portland cement concrete about 500 cu. yds., piling about 8,000 lin. ft.; check, $800. Cy. Engr., Emmet Steece.

CLINTON, IA.—Bids are asked until Oct. 11 for constructing 36 to 10-in. pipe sewers in several streets. Cy. Clk., W. E. Russell.

COLUMBIA, MO.—R. K. Roberts, Cy. Clk., writes us that the proposition to issue $25,000 in bonds for a system was defeated Sept. 27.

INDEPENDENCE, MO.—S. H. Woodson, Mayor, writes us that a proposition for building sewers in this city will be voted upon within 50 days. Engr., Andrew Rosewater, Bee Bldg., Omaha, Neb.; Cy. Engr., H. M. Pendleton.

DENVER, COLO.—The board of public works has adopted plans for a system in Capitol Hill storm sewer District No. 1; estimated cost, $400,600. It is expected that work will be begun soon and that the system will be completed by Oct. 1, 1900. Engr., H. C. Lowrie.

VICTOR, COLO.—M. Donovan has been awarded the contracts for building a system at $57,980, according to reports.

GRASS VALLEY, CAL.—Geo. L. Nusbaumer, Oakland, Cal., has submitted a report and estimates for a system to cost about $37,000. Cy. Surv., Fred. M. Miller.

LONG BEACH, CAL.—It is proposed to construct a system at a cost of about $25,000. Mayor Johnson may be addressed.

LOS ANGELES, CAL.—Plans have been approved for a sewer in the Arroyo de los Posos district; estimated cost, $10,000.

GANANOQUE, ONT.—The question of building a system and water-works is being considered. Mayor, W. B. Carroll; Geo. Taylor, Dr. E. L. Atkinson and J. F. Green are on the committee.

GARBAGE DISPOSAL—STREET CLEANING

LANSINGBURG, N. Y.—Adolph C. Sorensen has been awarded the contract, at $1,872, for removing the refuse from the streets for one year, beginning Oct. 1.

ATLANTIC CITY, N. J.—Bids were asked until Oct. 3 for constructing a Smith-Siemens garbage crematory. Engr., M. V. Smith; Chn. Com., S. H. Kelly; Clk., E. D. Irelan.

CLEVELAND, O.—Bids are asked until Oct. 3 for furnishing the apparatus and for removing the ashes, soot, debris, etc., from the Fairmount and Division St. pumping stations for one year. Dir. Pub. Wks., Geo. R. Warden.

BAY CITY, MICH.—The Sanitary Garbage Co. has been granted a license to collect kitchen refuse.

OMAHA, NEB.—The question of purchasing a road scraper and a street sweeper is being considered. Alderman Barrett may be addressed.

KANSAS CITY, MO.—It has been decided to build a garbage dump at a cost of about $2,300. Supt. of Bldgs., Wallace Love.

STREETS AND ROADS.

GLOUCESTER, MASS.—The committee has recommended the purchase of a new road roller to cost $3,500, according to reports.

NEWBURYPORT, MASS.—Bids are asked until 12 m., Oct. 6, for constructing 4,600 lin. ft. of highway. T. C. Mendenhall, Chn. State Highway Comn., Boston.

WOBURN, MASS.—An ordinance has been presented to the council to appropriate $6,500 for macadamizing.

WICKFORD, R. I.—This place has appropriated $15,000 for macadamizing.

NEW LONDON, CONN.—Bids are asked until Oct. 15 for improving Ocean Ave.; surety, $1,000. Geo. K. Crandall, Cy. Surveyor; Peleg Williams, Chn. Com.

AUBURN, N. Y.—E. H. Herriing, Cy. Clk., informs us that a contract has been awarded to the Warren-Scharf Asphalt Paving Co., New York, at $1,750 for 1,[illegible] sq. yds. of asphalt, as a sample.

GREECE, N. Y.—John Paine informs us that plans have been secured for the improvement of the Ridge road, but have not yet been submitted to the board of supervisors.

KINGSTON, N. Y.—John T. Cummings, Cy. Clk., informs us that the question of paving 5,000 sq. yds. with asphalt, at an estimated cost of $10,000, will be reported favorably by the street committee, provided that the adjacent property owners sustain 75% of the cost. W. Klingberg, Cy. Engr.

NEW YORK, N. Y.—Bids are asked until Oct. 13 for paving the carriageway at 59th St. and Fifth Ave. with asphalt. Geo. C. Clausen, Comr. Parks, Arsenal, Central Park.

PORT CHESTER, N. Y.—Bids are asked by the village trustees until Oct. 10 for the purchase of $42,000 of 3½% street paving bonds.

POUGHKEEPSIE, N. Y.—A petition has been presented to the board of public works for Trinidad sheet asphalt paving on North Clover St., for 760 ft.

SCHENECTADY, N. Y.—The council has fixed the cost of the proposed Albany St. paving, at $26,868.

YONKERS, N. Y.—The Barber Asphalt Co., New York, has been awarded a contract by the council, at $37,143, for paving on South Broadway with sheet asphalt.

ELIZABETH, N. J.—Peter Bonnett, P. Egenolf, Joseph McManus, Fred. C. Marsh and H. H. Isham have been appointed a committee to consider the question of paving the city streets with asphalt, according to reports.

PLAINFIELD, N. J.—An ordinance will be introduced in the council Oct. 7 for asphalt paving on Park Ave., Watchung Ave., Front St. and Somerset St.; estimated cost, about $24,395. Elliot T. Barrows, Chn. Com.

RIVERTON, N. J.—Bids are asked until Oct. 6 for constructing sidewalks on portions of Lippincott Ave. Edward Stoughton, Mayor; Chas. S. Walnut, Borough Clk.

ALLEGHENY, PA.—Bids are asked until 2 p. m., Oct. 7, for grading and paving Pennsylvania Ave., between Allegheny Ave. and Beaver Ave. Robt. McAfee, Dir. Dept. Pub. Wks.

OAKMONT, PA.—Bids were received Oct. 5 for the purchase of $65,000 of 4% street improvement bonds. Albert McGee, Pres. Council; W. A. Tomlinson, Clk.

PHILADELPHIA, PA.—The bureau of highways has asked for an appropriation of $1,497,588 for the year 1899.

RANKIN, PA.—Reports state that new bids will be asked by the council for paving Bell Ave; Ott Bros., Pittsburg, to whom the contract was awarded, at $3,885, have withdrawn.

SHARPSBURG, PA.—Bids are asked until Oct. 18 for the purchase of $60,000 in 4% street improvement bonds. Geo. D. McMorran, Chn. Finance Com.

YARDLEY, PA.—The Delaware River Quarry & Construction Co., Philadelphia, has been awarded a contract, at $5,475, for about 7,000 sq. yds. of macadam on Main St.

WILMINGTON, DEL.—Bids are asked until 7 p. m., Oct. 6, for grading and laying cement walks in the 8th St. Park. Henry R. Smith, Chn. Park Com.

ANNAPOLIS, MD.—The county commissioners have awarded a contract to Joseph M. Bryan, Baltimore, at $2,399, for about three-fourths of a mile of gravel road.——The council has appropriated $12,000 to pave Prince George St. with brick. L. J. M. Boyd, Frank H. Stockett, D. O. Parlett, Com.

OAKLAND, MD.—Reports state that the council will issue $25,000 in bonds for street improvements, and an electric light plant.

LEESBURG, VA.—It is reported that the Leesburg & Point Rocks Turnpike Co. has awarded a contract to Frank E. Conrad, Winchester, Va., at $6,000, for improving the road between Leesburg and Limestone.

PIEDMONT, W. VA.—Bids are asked by the council for brick paving in Childs Ave., according to reports.

ATLANTA, GA.—Bids are asked until Oct. 28 for furnishing and constructing asphalt brick or stone paving at the county jail yard. Grant Wilkins, Engr., 9½ Peachtree St.; Walter R. Brown, Chn. County Comrs.

NEW ORLEANS, LA.—Bids are asked until Oct. 10 for paving a portion of Canal St. with asphalt and brick. W. S. Douglass, Comptroller.

CLEVELAND, TENN.—J. I. Harrison, County Clk., informs us that the question of issuing bonds for new roads, etc., may be considered by Jan. 1.

BRIDGEPORT, O.—Reports state that the proposition to issue $60,000 in bonds for paving, is again to be voted upon.

CLEVELAND, O.—Bids are asked until Oct. 14 for grading, etc., and brick paving on seven streets. Geo. R. Warden, Dir. Pub. Wks.

CLEVELAND, O.—Bids are asked until Oct. 28 for grading, draining, curbing and brick paving in Scott and six other streets. Geo. R. Warden, Dir. Pub. Wks.

HAMILTON, O.—L. A. Dillon, Cy. Engr., has submitted plans for the proposed macadamizing of North 3d St.; estimated cost, $32,288. The plans have been referred to the committee on public improvements.

MARSHALL, O.—Resolutions have been passed to pave portions of Lafayette Ave., Jefferson Ave., North St. and Arrow St. with Trinidad asphalt. Jno. G. Miller, Mayor; A. R. James, Cy. Clk.

ZANESVILLE, O.—Bids are asked until Oct. 8 for furnishing material and grading and paving Luck Ave., from Abington Ave. to Belknap St. C. N. Bainter, Cy. Clk.

INDIANAPOLIS, IND.—A hearing will be given Oct. 17 to consider the proposed improvement of portions of Southerland Ave., 27th St., Miami St. and College Ave., by constructing new sidewalks, grading, paving, etc. M. A. Downing, Chn. Bd. Pub. Wks.

LOGANSPORT, IND.—Bids are asked until Oct. 17 for furnishing the material and for excavating, grading and asphalt paving on 8-in. concrete base, on Market St.; surety, $500. A. D. Fansler, Cy. Clk.

GRAND RAPIDS, MICH.—The board of public works has awarded a contract to Albert Prange, at $7,233, for improving Lyons St., and to Rens & Hoogerhyde, at $3,790, for improving Grand Ave.

BLOOMINGTON, ILL.—Bids are asked until 12 m., Oct. 6, for furnishing and constructing pavement in one alley. C. F. Koch, Pres. Bd. Local Improvements.

WATERTOWN, WIS.—H. Mulberger, Mayor, writes us that bids for paving five blocks of Main St. with brick were opened Sept. 17. Only two bids were received, which, owing to irregularities in each and to the high figure, $4.80 a lin. ft., front, including curbing, were not accepted. It is apparently the intention of the council to increase the proposed amount of paving to 15 blocks, for which the contract will be awarded early next spring.

ST. PAUL, MINN.—L. W. Rundlett, Cy. Engr., has submitted estimates to the board of public works for the proposed paving in East Seventh St.; with asphalt, $35,710; sandstone, $37,400; brick, $30,655. The contract will be awarded some time between Feb. 1 and April 1.

FARGO, N. DAK.—J. A. Johnson, Mayor, writes us that it is proposed to pave 80,000 sq. yds. with cedar block at $1.06 per sq. yd. Bonds will be issued, bearing 7%, due on or before Jan. 1, 1910, and to be retired at any time after Jan. 1, 1902. S. F. Crabbe, Cy. Engr.

ST. LOUIS, MO.—Bids are asked until Oct. 14 for maintaining the natural rock asphalt pavement on Olive St., between Grand Ave. and Vandeventer Ave. Robt. E. McMath, Pres. Bd. Pub. Wks.——A hearing will be held Oct. 14 to consider petitions for improvements in 14 alleys and 18 streets; estimated cost, $189,520. Emory S. Foster, Secy. Bd. Pub. Wks.

FORT WORTH, TEX.—The city engineer has been instructed to estimate the cost of different materials for paving in Main, Houston and Cross Sts.

SHERMAN, TEX.—C. P. Gregory, Chn. St. Com., informs us that no money has yet been appropriated for the proposed paving.

PORTLAND, ORE.—The council proposes to grade portions of six streets. A. N. Gambell, Auditor.

OAKLAND, CAL.—A contract has been awarded to Hillhouse & Reardon to pave Clay St. with bitumen, from Seventh St. to San Pablo Ave.

SAN FRANCISCO, CAL.—The street committee has decided to pave 15 blocks with bitumen.

WINDSOR, ONT.—John Bairs, Mayor, informs us that no steps have been taken towards asphalt paving, as stated in our issue of July 21.

MEXICO, MEX.—The Mexican Asphalt Pavement Co. has been awarded a contract for about 36,000 sq. yds. of sheet asphalt paving on the streets of the Paseo Land & Improvement Co.

MANUFACTURING PLANTS.

OTIS, ME.—It is reported that Whitcomb & Haynes, of Elkworth, Me., will erect a mill this fall at the foot of Floods Pond.

WEYMOUTH, MASS.—The Bradley Fertilizer Co.'s works at Weymouth were damaged by fire, Sept. 28, causing a reported loss of $500,000. Insurance was as follows: $85,000 on the building, $53,000 on the machinery and $107,000 on the stock.

HARRISON, N. J.—A fire in this city, Sept. 28, destroyed the leather factory of Hahn & Stumpf, at Warren and Jersey Sts., causing an estimated loss of $70,000. The plant consisted of a dozen 2-story frame buildings, and contained considerable machinery.

LUZERNE, PA.—The foundry of J. T. Snyder, at Bennet Station, was recently destroyed by fire, causing a loss of about $12,000.

PARKERSBURG, W. VA.—The sawmill, dryhouse and lumber yard of Kreps & Pope, situated several miles east of this city, were totally destroyed by fire. Loss, $20,000; insurance, $4,000.

ANDERSON, S. C.—It is reported that efforts are being made to organize a company, with a capital stock of $125,000, to erect a new cotton mill in this city. Among those interested are: R. S. Hill, Pres. of Farmers' & Merchants' Bank; J. R. Vandiver, Dr. S. M. Orr and Geo. M. Evans.

LOUISVILLE, KY.—The Callahan & Sons Grain Co. has been granted a permit to erect a grain elevator at 13th and Lexington Sts., to cost $14,500.

CINCINNATI, O.—The Lodge & Shipley Machine Tool Co., of Cincinnati, informs us that all the contracts, except for brick and carpentry work, have been let, including engines, boilers and electric plant.

PAINESVILLE, O.—The Robison Basket Co., of this city, informs us that it has erected a temporary building to replace the one destroyed by fire on Aug. 7, causing a loss of over $100,000, and that from 23,000 to 25,000 grape baskets are now manufactured daily. Pres., Jas. T. Robison.

BEDFORD, IND.—Reports state that the Portland Cement Co., of Utah, has leased oolithic limestone lands near Bedford, and will erect a $125,000 plant.

CHEBOYGAN, MICH.—Thompson Smith's Sons, sawmill, at Duncan City, a suburb of Cheboygan, was damaged by fire Sept. 26, causing a loss of about $125,000; insurance, $60,000.

ENSLEY, ALA.—It is reported that the Riter-Conley Co., of Pittsburg, has contracted to erect ten 50-ton "Wellman" rolling furnaces for an open-hearth steel furnace plant for the Alabama Steel & Shipbuilding Co., at Ensley.——We are informed that the Tennessee Coal, Iron & R. R. Co., who operate foundries at Birmingham, Ala., and at South Pittsburg, Pa., is about to erect a new foundry, 240 x 80 ft., at Ensley, to do its own work. Vice-Pres., J. Bowron, Birmingham, Ala.

CUMBERLAND, WIS.—The plant of the Beaver Dam Lumber Co., including mill, yards and contents, was totally destroyed Sept. 29, causing a reported loss of $150,000.

HOPE, KAN.—It is reported that the Kansas Cement Co. is making arrangements to double its present capacity. Mgr., Major H. B. Merrell.

CARTHAGE, MO.—The elevator of McDaniel & Morrow was burned Sept. 24, causing a loss to the building of $30,000.

CRIPPLE CREEK, COLO.—It is proposed to build a hot water heating plant for supplying heat to the buildings in this city, to cost about $100,000.

BELLEVILLE, ONT.—The council has decided to offer a $50,000 bonus to F. A. Mitchell, of Norwich, Conn., to have him remove his rolling mills to this city.

GAS PLANTS.

SHIPPENSBURG, PA.—Reports state that J. H. Miller, McKeesport, Pa., has leased the works of the Shippensburg Gas Co., and will improve the plant.

FLORENCE, ALA.—Reports state that the Florence Gas Light & Fuel Co. will enlarge its plant and lay several thousand feet of additional mains. A proposition has been made to the council to furnish 65 additional street lights.

SANTA ROSA, CAL.—The Santa Rosa Lighting Co. will extend the gas pipe line on East Fourth St., from McDonald Ave. to St. Helena Ave., and on Cherry St., from Beaver to King St.

GALT, ONT.—The council has decided to purchase the plant of the Galt Gas Light Co., according to report.

NEW COMPANIES.—Seneca Oil Co., Salamanca, N. Y.; $144,000; to produce petroleum oil and gas; Edward B. Vreeland, Salamanca, and others.

Hope Natural Gas Co., Oil City, Pa.; $500,000, with $200,000 paid in; to produce, pipe and sell natural gas; E. Strong, John Tonkin and H. McSweeney, of Oil City, Pa.; C. N. Payne and Robert S. Hampton, of Titusville, Pa.

MISCELLANEOUS CONTRACTS.

TELEPHONE SYSTEM.—Jackson, Mich.—The New State Telephone Co. has been granted a franchise in this place.

DAM.—Middletown, O.—The state dam will be repaired, at an estimated cost of $4,350. Chas. Hayman, Supt. Canals, Columbus.

TELEPHONE SYSTEM.—Bordentown, N. J.—The council has granted a franchise to the Bordentown Telephone & Telegraph Co.

TELEPHONE SYSTEM.—St. Paul, Minn.—The Mississippi Valley Telephone Co. has been granted a franchise to operate in this city.

STEAM TENDER.—Louisville, Ky.—Bids are asked unt l Oct. 29 for constructing a steam tender. Capt. Geo. A. Zinn, U. S. Engr., Louisville.

TELEPHONE LINE.—Elyria, O.—A new telephone line will be constructed between Lorain and Elyria, by the Ohio Toll Line Co., according to reports.

WALL.—Atlanta, Ga.—Bids are asked until Oct. 28 for building a brick and stone wall and for the material for the county jail enclosure. A. L. Kontz, County Clk.

BULKHEAD. — Stockton, Cal. — Bids are asked by the board of public works for constructing a bulkhead 110 ft. long at the wharf of the Navigation & Improvement Co.

JETTY.—Stockton, Cal.—State Engineer Randall is preparing plans for a jetty 1,500 ft. long and 125 ft. wide, at the mouth of the San Joaquin River, according to reports.

CHANNEL.—Waterbury, Conn.—R. A. Cairns, Cy. Engr., writes us that the following bids were received Sept. 24, 1898, for dredging a channel in Little Brook; all local bidders; Chatfield & Chatfield awarded contract:

Quantities.		Chatfield & Chatfield.	Gaffney & Martin.	Edw. Manus.
6 x 5½-ft. conduit.*	215 lin. ft.	$17.25	$25.00	$17.00
6 x 4½-ft. conduit*	200 " "	15.25	21.00	16.75
Stone paving†	20 sq. yds.	.75	1.35	1.25
Extra for Portl'd cement	200 cu. yds.	1.15	4.75	1.69
Manholes	2 each	15.00	12.00	24.00
Receiving basins	3 "	18.00	95.00	30.00
Total		$7,088	$10,861	$7,506

*Brick and concrete. †Dry, 15 in. deep in old channel.

Channel excavation, about 8 ft. deep by 10 ft. wide; gravel and boulders. Brook water to be cared for during construction. Several buildings are to be gone under and supported at considerable expense. There will be 8-in. sewer brick; a lower lining of 4-in. vitrified brick, and a concrete invert of 8 ins., 1½ ft., and 2 ft.

CANAL FEEDER.—Chicago, Ill.—Maj. W. L. Marshall, U. S. Engr., received the following bids Sept. 21 for constructing eight miles of earthwork for a feeder of the Illinois & Mississippi Canal, south of Rock Falls, Ill., for which work there is available $200,000, as advertised in Engineering News:

Bids Received at Chicago, Ill., Sept. 21, 1898, for Canal Feeder on the Illinois & Mississippi Canal.

Bidder.	Earthwork, Miles 1 to 8, inclusive. 1. 243,055 cu.yds. cts.	2. 160,488 cu.yds. cts.	3. 113,678 cu.yds. cts.	4. 133,293 cu.yds. cts.	5. 119,531 cu.yds. cts.	6. 160,699 cu.yds. cts.	7. 190,597 cu.yds. cts.	8. 149,876 cu.yds. cts.
Joel E. Loomis, Prophetstown, Ill.	....	....	9.0	11.0	....	....	....	....
J. H. McShane & Co., Omaha, Neb.	....	....	....	....	....	....	14.45	14.45
Cogan & Pound, Chicago, Ill.	15.0	15.0	11.5	11.5	10.0	12.0	12.0	12.0
Callahan Construction Co., Omaha, Neb.	11.5	13.63	11.9	13.25	8.35	12.75	13.9	11.8
Michael Sullivan, Cincinnati, O.	21.0	18.0	17.0	18.0	....	....	....	....
Corbett & Currie, Chicago, Ill.	....	....	....	....	7.95	....	....	....
Canal Construction Co., Chicago, Ill.	18.0	16.0	14.5	14.5	14.5	14.75	15.75	15.75
John J. McCaughey, Summit, Ill.	....	....	....	....	19.9	16.64	....	....
R. C. Cushing & Co., Chicago, Ill.	18.0	20.0	20.0	18.0	20.0	17.0	17.0	17.0

DREDGING.—Oakland, Cal.—Bids are asked until Oct. 17 for dredging Lake Merritt; estimated cost $80,000. (Postponement from Oct. 12.) H. W. Thomas, Secy. Bd.

LEVEE WORK.—Columbus, O.—Bids are asked until Oct. 11 for furnishing the material and repairing and heightening the levee along the Scioto River. Jas. A. Fanning, Clk.

TUNNEL.—Cambridge, Mass.—Bids are asked until Oct. 8 for a tunnel in the court yard at East Cambridge. Olin W. Cutter, Arch., 85 State St., Boston; L. S. Gould, County Comr., Boston.

STONE WALL.—San Francisco, Cal.—Bids are asked until Oct. 28 for constructing a stone wall along the southern boundary of the military reservation. Lieut.-Col. Oscar F. Long, Dept. Q. M., 36 New Montgomery St.

TELEPHONE LINE.—Brussels, Belgium.—Press reports state that Consul Roosevelt, Brussels, reports under date of Aug. 15 that a telephone line will be constructed between Brussels, Berlin and Paris about 621 miles long.

PARK WORK.—New York, N. Y.—Bids are asked until Oct. 13 for furnishing material and setting granite coping, asphalt, etc., laying out tree plots, sod, etc., and erecting a lavatory, including cement floor and steps. Geo. C. Clausen, Comr. Parks, Arsenal, Central Park.

TELEPHONE LINE.—Bel Air, Md.—The Baltimore & Hartford County Telephone Co. has been incorporated with a capital stock of $60,000 to construct 12 miles of telephone line. The directors are Dr. J. F. H. Gorsuch, H. J. Hollingsworth, D. F. Benson, Edward J. Bell and Walter P. Reckord, Mgr.

HARBOR IMPROVEMENTS. — Montevideo, Uruguay.—Bids are asked by the provisional government of Uruguay for the improvement of the harbor of Montevideo; estimated cost, $15,000,000. Tenders from American and European contractors are desired, according to reports. Albert W. Swalm, U. S. Consul.

BRIDGE SUBSTRUCTURE.—Westfield, Mass.—We are informed that the following bids were received Sept. 26, 1898, for building the substructure for a bridge over Little River at Main St., Westfield, as advertised in Engineering News; F. T. Ley & Co. received the contract; Engrs., O. E. Parks:

Bidder.	Piling, 7,000 lin. ft.	Grillage, 10,600 ft. B.M.	Concrete, 240 cu.yds.	Rubble masy, 530 cu. yds.	Cut stone, 50 cu. yds.	Total.
F. T. Ley & Co.[1]	$0.15	$35.00	$6.50	$7.20	$14.55	$7,504
A. H. Wright & Son.[2]	.17	21.50	5.00	8.50	16.90	7,955
R. D. Maynard[1]	.18	30.00	6.00	9.00	17.00	8,620
G. M. Atkins & Co.[3]	.20	25.00	7.00	9.00	16.00	8,900
Lathrop & Shea[3]	.18	22.00	6.00	9.75	17.00	8,938
W.N.Flynt Gran. Co[4]	.20	23.00	6.75	9.95	16.00	9,324
H. C. Wood[5]	.16	27.30	10.80	8.95	16.25	9,541
H. W. Warner[6]	.25	30.00	7.50	9.00	20.00	9,620
G. R. Blodgett[6]	.18	30.00	8.50	9.25	22.50	9,628
Maloney & Peterson.[1]	.24	22.00	8.00	9.00	22.00	9,690

[1]Springfield. [2]Palmer. [3]New Haven, Conn. [4]Monson. [5]Westfield. [6]Leeds.

STEEL RAILS.—Washington, D. C.—The following bids were received by the U. S. Engineers Sept. 6, 1898, for furnishing steel rails; (1) being rails per ton; (2) for plates, each, (3) for bolts per 100; Penn Steel Co., Steelton, Pa., (1) $20, (2) 15 cts., (3) $2.50; Barber & Ross, Washington, (1) $22.82; W. A. Pate, Washington, (1) $23.90, (2) 39 cts, (3) $2.10.

BRICK PAVING.—Salamanca, N. Y.—G. E. De Golia informs us that the following bids were received Sept. 28, for brick paving; contract being let to Sheehan & McGahn:

Bids Received at Salamanca, N. Y., Sept. 28, 1898, for Brick Paving.

Quantities.		Sheehan & McGahn, Bradford,	M.H.Hubbell & Co., Salamanca,	Peter Schenck, Meadville, Pa.	B. U. Taylor, & Co., Olean, N. Y.	E. Fee, Olean, N. Y.	G. Berlin, Meadville, Pa.	Ross & Robinson.	Jamestown Contract'g Jamestown, N. Y.
Excavating	5,250 cu. yds.	$0.18	$0.20	$0.30	$0.24	$0.20	$0.22	$0.25	$0.20
Pavement	9,755 sq. yds.	1.24	1.24	1.21	1.35	1.33	1.20	1.34	1.27
Curb, Straight	7,695 lin. ft.	.30	.30	.32	.44	.38	.40	.30	.33
Curb, Circular	390 " "	.50	.30	.63	.54	.54	.55	.50	.40
Curb, Resetting	230 " "	.10	.10	.10	.10	.20	.25	.14	.10
4-in. tile	200 " "	.10	.04	.15	.06	.08	.20	.18	.06
Sewer manholes	10 each	25.00	23.00	26.00	30.00	24.00	22.00	25.00	20.00
Catchbasins	3 "	30.00	25.00	25.00	25.00	24.00	22.00	33.00	18.00
Sewer inlets	3 "	30.00	10.00	18.00	17.00	13.50	15.00	25.00	18.00
Total		$16,018	$15,938	$16,529	$18,487	$17,573	$16,582	$17,380	$16,477

PARK.—Philadelphia, Pa.—Chief Eisenhower, Bureau of Pub. Property, City Hall, is receiving estimates on plans, etc., for a new city park, to be located at Allegheny Ave., Wellington, Ellwood and Belgrade Sts. A fountain will be erected in the center and other work will include grading, walks, paving, curbing, etc.

TELEPHONE SYSTEM.—Thomasville, N. C.—The Thomasville Telephone Co., with a capital stock of $6,000, has been incorporated by F. S. Lambeth, J. W. Lambeth, C. A. Julian, J. P. Haden, W. E. Evans, R. W. Thomas, C. R. Thomas, W. M. Morton, A. Johnson, J. B. Boone and J. A. Green, to erect a telephone system in Thomasville and Davidson county.

PARK WORK.—Philadelphia, Pa.—The commissioners have asked for an appropriation of $561,000 for the maintenance of Fairmount Park for the coming year, which will include a new east shore drive, $50,000; dredging the Schuylkill River, $25,000; sprinkling drives, etc., $20,000; macadamizing, $10,000; electric lighting, gasoline and naphtha lamps, $42,300; electric lights in the East, West and Wissahickon sections, $32,300; etc.

CONTRACT PRICES.

STONE JETTIES.—Green Harbor, Mass.—Frederick N. Wales, Clk. Bd. Harbor and Land Comrs., Room 131, State House, Boston, writes us that the following bids were received Sept. 22, 1898, for constructing stone jetties at Green Harbor, as advertised in Engineering News: Thos. A. Rowe, 209 Washington St., Boston, $1.47 a ton; Simon Hess, 28 Bond St., New York, $1.44; Rockport Granite Co., 31 State St., Boston (awarded contract), $1.19; Keyes & Daloia, 12 Marion St., Charlestown, $1.49; Pigeon Hill Granite Co., Rockport, Mass., $1.65; S. & E. S. Belden, Hartford, Conn., $1.63.

WATER PIPE, ETC.—Nashville, Tenn. — F. E. Kuhn, Secy. Bd. Pub. and Affairs, writes us that the following bids were received Sept. 27, 1898, for furnishing cast-iron water pipe, pig lead, valves and hydrants; 6-in. water pipe, 250 tons:

	A ton.
Addyston Pipe & Steel Co., Cincinnati	$17.00
R. D. Wood & Co., Philadelphia	21.00
Ohio Pipe Co., Columbus, O.	18.08
Dennis Long & Co., Louisville	16.34
*Keith, Simmers & Co., Nashville	14.75

*Agents for the Chattanooga Pipe Works, awarded contract.

Pig Lead, five tons.	A 100 lbs.
Clark & Knight, Nashville	$4.29½
Keith, Simmers & Co., Nashville	4.29½
National Lead Co., Louisville, Ky.	4.40
N. O. Nelson Mfg. Co., St. Louis	4.30
L. M. Rumsey Mfg. Co., St. Louis (accepted)	4.25
6-in. Valves, 25.	Each.
Keith, Simmers & Co., Rensselaer valve	$12.00
Keith, Simmers & Co., Ludlow valve (accepted)	11.24
Ludlow Valve Mfg. Co., Troy, N. Y.	11.25
Fire Hydrants, 25.	Each.
R. D. Wood & Co., Philadelphia	$17.84
Michigan Brass & Iron Works, Detroit (accepted)	16.40
Geo. S. Parks & Co., Agents	22.00

MASONRY DAM.—Hyde Park-on-the-Hudson, N. Y.—We are informed that the contract for building an uncoursed rubble stone masonry dam set in Knickerbocker Portland cement mortar has been let to D. Cuozzo, 150 Nassau St., New York, at $9.68 a cu. yd. Engr., Owen Morris, Hyde Park.

STREET CLEANING. — Los Angeles, Cal. — T. J. Zeshandelaar, Secy. Merchants' & Manufacturers' Association, writes us the contract for the street cleaning has been awarded to Franklin & Alexander, 201 Currier Bldg., Los Angeles, at 14½ cts. a 1,000 sq. yds. The life of the contract is from Nov. 21, 1898, to July 1, 1901. The area covers about 15 miles of asphalt paved streets; the work to be done daily by machine. In addition to the contract let the city will sweep the business portion of town (76,942 sq. yds.) by hand every day during business hours, the work to be done under the direction and supervision of the street superintendent. Local papers state that the following were the bids received Sept. 12, 1898, for the street cleaning: Specifications A being for machine sweeping of the entire city, specifications B for hand-sweeping the business section of the city, and specifications C for machine sweeping of all paved streets not included under B: H. R. Tibbets, specifications A, 23½ cts. a 1,000 sq. yds.; C. A. Potter, specifications A, 26½ cts. a 1,000 sq. yds.; Franklin & Alexander, specifications A, 14½ cts. a 1,000 sq. yds.; specifications B, 55 cts. a 1,000 sq. yds.; specifications C, 18½ cts. a 1,000 sq. yds.; Ramish & Marsh, specifications A, 21 cts. a 1,000 sq. yds.; B, 55 cts. a 1,000 sq. yds., C., 21 cts. a 1,000 sq. yds.; W. I. Hollingsworth, specifications A, class 1, 26 cts. a 1,000 sq. yds.; class 2, 28 cts. a 1,000 sq. yds.; class 3, 30 cts. a 1,000 sq. yds.; specifications B, to furnish 20 men with hand brooms and shovels, besides the necessary men to sprinkle the roadway and remove dirt, for 59 cts. a 1,000 sq. yds.; specifications C, 31 cts. a 1,000 sq. yds.

ELECTRIC LIGHT PLANT.—Grand Rapids, Mich.—The following bids were received Sept. 20 for furnishing the machinery, etc., and for building a plant, as advertised in Engineering News; in total bids for boilers all are for Hawley furnaces, except the Arbuckle-Ryan Co.; Engrs., Nagle & Ball, New York Life Bldg., Chicago, Ill.; Pres. Bd. Pub. Wks., Wm. T. Johnston; Secy., Fred A. Twamley:

BRICK PAVING.—Scranton, Pa.—The following bids were received in councils Sept. 22, 1898, for paving a portion of Dix Court with vitrified brick on a 6-in. concrete base: V. H. O'Hara, Scranton, Pa., $1.73 a sq. yd. for pave, 47 cts. a lin. ft. for straight curb, 83 cts. a ft. for circular curb, 15 cts. a lin. ft. for resetting curb; M. J. Ruddy, Scranton, $1.75 a sq. yd. for pave, 49 cts. a lin. ft. for straight curb, 85 cts. a lin. ft. for circular curb; W. S. Langstaff, Jr. and Thos. J. Hughes, Scranton, Pa., $1.88 a sq. yd. for pave; 45 cts. a lin. ft. for straight curb, 82 cts. a lin. ft. for circular curb. Joseph P. Phillips, Cy. Engr.

LEVEE WORK.—Marysville, Cal.—The levee commissioners awarded the following contracts Sept. 15, 1898, for levee work near Marysville: Jacob Schimpf, sections 1, 4 and 5, for 3,667 cu. yds., at 22½ cts.; 3,596 yds., at 19c.; 3,941 yds., 18c, respectively. Willis, O'Brien & Ruff, section 2, 4,549 cu. yds., 19½ cts.; John Lopez, section 3, 602 cu. yds., 17½ cts. Work will be commenced at once.

ASPHALT PAVING.—Chicago, Ill.—The Barber Asphalt Paving Co. has been awarded the contract, at $2.15 a sq. yd., for asphalt paving in North Clark St. and in North State St. The work is to be completed Oct. 31 and Nov. 30, respectively, for each street.

SIDEWALKS.—St. Paul, Minn.—The following were the only bids received by the board of public works for removing about six miles of old wooden sidewalks and laying cinder and gravel walks: Nicholas Feyen, 15.7 cts. a lin. ft., grading, 30 cts. a cu. yd.; Fielding & Sheffey, 10 cts. a lin. ft., grading 15 cts. a yd.

ENGINEERING MATERIAL PRICES.

TRACK MATERIALS—

New York—Angle bars, 1.05 cts. to 1.10 cts.; spikes, 1.40 cts. to 1.50 cts.; track bolts, hexagonal, 1.80 cts. to 1.85 cts.; square, 1.60 cts. to 1.75 cts.

LUMBER—

New York:

Hemlock timber, 20 ft. and under, per M, $12.00 to $12.50.

Piling, Eastern spruce, 35 to 40 ft., 30 to 40% 12-in. butts, 4¼ cts. to 4½ cts.

Spruce, special cargoes, per M, $15.00 to $17.50.

Yellow pine, random cargoes, $14.50 to $17.00.

North Carolina pine, $2.25 to $2.40 advance over Norfolk rates.

San Francisco:

Oregon pine, per M, $15.50 to $17.50.

Redwood, per M, $18.00 to $20.00.

Redwood tank stock, up to 10 ft., $24.00 to $25.00.

GENERAL MATERIALS—

Lead, New York, 3.90 cts. to 3.95 cts.

Nails, Pittsburg, 1.40 cts.

Solder, per lb., 8¼ cts. to 11½ cts.

Spelter, per lb., 3.90 cts. to 4.00 cts.

Copper ingots, 12.25 cts. to 12.40 cts.

Granite, rough, New York, cu. ft., 40 cts. to 50 cts.

Limestone, New York, cu. ft., 70 cts. to 80 cts.

Ohio freestone, New York, cu. ft., 85 cts. to 90 cts.

Slate, Penn. block, per square, $4.00 to $5.00.

White lead, American, per lb., 5½ cts. to 6 cts.

Lime, common state, per bbl., 70 cts.

INDUSTRIAL NOTES.

THE AMERICAN VITRIFIED CONDUIT CO., New York, has the contract to construct the conduits for the underground wires and cables of the Narragansett Electric Lighting Co., Providence, R. I. Mr. C. J. Field, M. Am. Inst. E. E., 30 Broad St., New York, is the General Manager and Engineer of the former company.

BIDS RECEIVED AT GRAND RAPIDS, MICH., SEPT. 20, 1898, FOR MACHINERY, ETC., FOR AN ELECTRIC LIGHT PLANT.

Boilers.

Bidder.	Type.	Heating surface, sq. ft. Capacity.	Boilers.	Econo-mizer.	Boilers. Plain grate.	Hawley.	Murphy.	Roney.	American.	Economizer.	Stack.	Total.	Evaporation.	Ind. screenings.	Time, days.
Aultman & Taylor Mfg. Co., Mansfield, O.	Hor. water-tube.	(3) 200-HP.	6,111	2,016	$6,950	$1,800	$1,960	$2,080	$1,950	$1,960	$2,750	$13,463[3]	8 lbs. screenings	75	
Babcock & Wilcox Co., New York	" "	(3) 203-HP.	6,108	2,016	7,775	2,400	Add $600* and		$525.†	2,107	3,501	16,658[2]	8½ lbs. Ind. scr's.[3]	75	
Heine Safety Boiler Co., St. Louis, Mo.	" "	(3) 200-HP.	4,944	.....	7,233	2,400	Add $310.†			2,166	2,950	.....	7½ lbs. screen'gs	90	
Henry Brobst	" "	(3) 200-HP.	6,000	2,016	6,349	2,400	.....	.....	.....	2,104	3,375	14,266[4]	8 lbs. Ind. slack.	100	
Wickes Bros., East Saginaw, Mich.	Vert. water-tube.	(3) 200-HP.	6,036	2,016	5,792	2,100	.....	.....	2,166	2,119	2,719	12,730	8 lbs. Ohio slack.	90	
Arbuckle-Ryan Co. (Stirling), Chicago	" "	(3) 200-HP.	6,210	2,016	7,000	.....	2,500	.....	.....	2,100	3,000	14,600	10½ lbs. lump.[5]	..	

*For oven furnace. †For flues. [1]For 200 lbs. pressure add $1,050; $240 per 1-10-lb. forfeit or bonus. [2]Add $350 for molded fire brick; $100 per 1-10-lb. forfeit or bonus. [3]8½ lbs. Ind. run of mine. [4]$100 for ¼-lb. forfeit or bonus. [5]West Virginia coal = 14,500 B. T. U.

Engines.

Bidder.	Type.	Revolutions.	Horse-power.	Engines.	Condenser.	Total.	Steam used, lbs.	Correction—Steam used.	House and crane.	Active value.	Complete.
Arbuckle-Ryan Co., Chicago, Ill.	Tandem triple.	150	(2) 600	$15,366	$5,100	$20,466	13.5	.....	$7,000	$27,466	
	" comp.	150	(2) 600	12,966	5,100	18,066	15.0	$4,688	7,000	29,753	
	" "	150	(2) 300	10,281	4,700	14,981	15.5	6,250	7,000	28,231	
Bullock Mfg. Co., Chicago (Williams).	" triple.	460	(6) 110	.....	.....	23,300	14.7	3,750	.....	27,050	

Electrical Apparatus.

Bidder.	Price of dynamos, including switchboard. 80 lights.	100 lights.	125 lights.	150 lights.	(6) 125 lights.	500 lamps and carbons. Single.	Do'ble.	En-clos'd.	Pole line complete.
Western Electric Co., Chicago, Ill.	$1,680	$2,069	$2,808[1]	$2,897	$16,850[2]	$8,630	$9,713	$8,455	$36,500
			2,706	3,147	16,234				
Fort Wayne (Ind.) Electric Corporation	1,653	2,054	2,655	3,094	.....[6]	8,555	9,788	8,380	.....
General Electric Co., Schenectady, N. Y.	1,700[2]	2,147	2,731	3,216	16,183[3]	8,605	9,637	8,524	.....
	1,709	2,697[4]							
Adams-Bagnall Electric Co., Cleveland, O.	.....	.....	.....	.....	.....	8,750	.....	9,000	.....
Chase Construction Co., Detroit, Mich.	.....	.....	.....	.....	.....	8,560	.....	8,610	35,870
Electric Installation Co., Chicago, Ill.	.....	.....	.....	.....	.....	.....	.....	.....	34,000
Furniture City Elec. Co., Grand Rapids, Mich	.....	.....	.....	.....	.....	.....	.....	.....	36,000
G. R. Electric Light & Power Co.	.....	.....	.....	.....	.....	.....	.....	.....	37,500[5]

[1]Direct-connected, 460 revolutions. [2]6.5 ampere dynamo. [3]9.6 ampere dynamo only. [4]110 lights. [5]Pole line (proposition 5) without towers, $12,340; cost to make compare with new line, $25,160; total, $37,500. [6]Only 5 dynamos bid on.

THE ALABAMA BRIDGE AND BOILER CO., Birmingham, Ala., has made an assignment. It is stated that the company had a capital of $12,000.

THE BERLIN IRON BRIDGE CO., East Berlin, Conn., announces that it has secured control of the Melan patent for concrete-and-steel arch bridges in the New England States.

THE ST. LOUIS CAR CO., St. Louis, Mo., has orders for 250 street cars from the Japanese government, according to report, to be shipped within 90 days, and to cost about $300,000.

THE RITER-CONLEY CO., Pittsburg, Pa., manufacturers and builders of blast furnaces, steel plants, iron roofs, buildings, etc., has become an incorporated company under the firm-name of the Riter-Conley Mfg. Co.

LA COMPAGNIE GENERALE DES ASPHALTES DE FRANCE, LTD., known as the General Asphalt Co., has opened an office at 204 Carondelet St., New Orleans, La., in charge of Mr. Alfred F. Harley, Consulting Engineer.

THE GOULD'S MFG. CO., Seneca Falls, N. Y., has of late been awarded contracts for a number of municipal pumping plants, among the latest being orders from St. Mary's, Pa., for a large double-acting triplex power pump, operated by a gas engine, and also at Lanesboro, Minn., Morris, Minn., and some large contracts for Canadian towns.

THE CHAMBERSBURG ENGINEERING CO., Chambersburg, Pa., has orders for four 100-inch hydraulic riveting machines for the Schoen Pressed Steel Co., Pittsburg; a 1,000-ton hydraulic flanging press for the Riter-Conley Co., Pittsburg; a four-ton hammer for the Burgess Steel & Iron Co., Portsmouth, O.; a complete hydraulic riveting plant for the Cleveland Steam Boiler Co., Cleveland, O., and an order for 80 tons of steel castings for a Western foundry.

WATER-WORKS APPLIANCES.—The following exhibits of water-works appliances were made at the meeting of the Central States Water-Works Association at Springfield, O., Sept. 27-9:

General Supplies.—Dayton Supply Co., Dayton, O.; H. Mueller Mfg. Co., Decatur, Ill.

Meters.—National Meter Co., New York city; Thomson Meter Co., Brooklyn, N. Y.; Pittsburg Meter Co., East Pittsburg, Pa.; Neptune Meter Co., New York city; H. R. Worthington, New York city; Hersey Mfg. Co., South Boston, Mass.

Miscellaneous.—Wm. Engberg, St. Joseph, Mich., Automatic Device for Controlling Valves; R. D. Wood & Co., Philadelphia, Pa., Mathews Fire Hydrant; Hoppes Mfg. Co., Springfield, O., Live Steam Feed Water Purifier; Trump Mfg. Co., Springfield, O., Hoppes Meter Box; Lagonda Mfg. Co., Springfield, O., Weinland Boiler Tube Cleaners; Moran Flexible Steam Joint Co., Louisville, Ky., Flexible Joints; Lead-Lined Iron Pipe Co., Wakefield, Mass., Service Pipe; Henry R. Worthington, New York, Pumps; A. P. Smith Mfg. Co., Newark, N. J., Pipe Tapping Machines; G. T. Latta, Ludlow, Ky., Hydraulic Tunnelling Apparatus for Service Pipes.

Chase Construction Co., Detroit, Mich.—(3) 200-HP. Cahall B. & W. boilers, (2) 600-HP. Russell engines No. 2, (6) 60-K-W. dynamos, 500 arc lamps A-B, pole line construction; total, $89,970; boilers, 200 lbs. extra, $1,050, total, $91,020; B. & W. boilers, extra, $3,243, total, $93,213; Stirling boilers, extra, $935, total, $90,905; triple expansion Russell engine No. 1, $2,400, total, $92,370; (2) 400-HP. compound engine, deduct $3,085, total, $86,885; 6 direct-connected engines extra, $6,490, total, $96,460. The Chase company secured the contract at $89,970. N. Y. Finance & Construction Co., New York.—(5) 233-HP. automatic engines, 240 revolutions; (4) 150-HP. Parkhurst compound boilers, steam piping, (6) 125-light dynamos, foundations, belts, crane and scales; total, $55,600. Arbuckle-Ryan Co.—Bid No. 1.: (2) 600-HP. triple engines, (3) 200-HP. Stirling boilers; total, $35,000; bid No. 2.: (2) 600-HP. compound engines, (3) 200-HP. Stirling boilers; total, $32,600; bid No. 3.: (2) 400-HP. compound engines, (3) 200-HP. Stirling boilers; total, $29,600.

LAYING WATER PIPE.—Lynn, Mass.—The following contract was let by the Metropolitan Water Board, Boston, Sept. 15, 1898, to O'Rourke & Nelson, Boston, for laying cast-iron pipe in Lynn: Laying 16-in. cast-iron pipe, 12,200 lin. ft., 65 cts.; laying 12-in. cast-iron pipe, 2,800 lin. ft., 45 cts.; laying 4-in. cast-iron pipe for blow-offs, 200 lin. ft., 25 cts.; excavation—rock, above grade, 25 cu. yds., $2.00; rock, below grade, 10 cu. yds., $3.50; earth, below grade, 10 cu. yds., 50 cts.; setting air valves, 5 valves, $1.50 each; chambers for valves less than 20 ins. diameter and air valves, 19 chambers, $20.00 each; concrete masonry, 10 cu. yds., $2.50; total, $9,743.

ARC LIGHTING.—Peoria, Ill.—Robt. M. Orr, Cy. Clk., writes us that the contract for lighting the city for two years from Nov. 1, with 400 2,000-c. p. arc lights has been renewed with the Peoria General Electric Co. at $98 a light a year; the service to be all night and every night.

QUAY WALL.—San Francisco, Cal.—We are informed that the following bids were received Sept. 24, 1898, by Mordecai T. Endicott, Ch. Bureau of Yards and Docks, Washington, D. C., for building an extension to the quay wall at the Mare Island Navy Yard, San Francisco:

Bidder.	A lin. ft.	Total.	Length wall.
T. Thomson, San Francisco	$72.00	$24,552	341 ft.
J. A. McMahon, San Francisco	70.75	24,126	341 "
Johnson & Petersen, Oakland	79.40	30,966	390 "
W. H. Healy, San Francisco	68.45	26,696	390 "
Cal. Bdg & Constn Co, Oakdale	.....	29,969	...
San Francisco (Cal.) Bridge Co.	81.10	27,655	341 "

ASPHALT PAVING.—Louisville, Ky.—The Southwestern Alcatraz Co. submitted the lowest bid Sept. 27 for asphalt paving at $18 and $17.50 a sq. of 100 ft., 5-year guarantee, and at $24 and $23 a sq., 10-year guarantee.

Chicago—Angle bars, 1.10 cts. to 1.15 cts.; spikes, 1.55 cts. to 1.60 cts.; track bolts, hexagonal, 1.90 cts. to 2.00 cts.; square, 1.80 cts. to 1.90 cts.

RAILS, STEEL—

New York, new, $18.00 to $19.00; old iron, $11.00 to $11.50; old steel $9.00.

Chicago, new, $20.00 to $22.50; old iron, $12.50 to $12.75; steel, $7.75 to $8.50.

Pittsburg, new $18.00 to $19.00; old iron, $13.50 to $13.75; steel, $10.00.

STRUCTURAL STEEL—

New York—Beams, 1.40 cts. to 1.45 cts.; channels, 1.40 cts. to 1.45 cts.; tees, 1.45 cts. to 1.50 cts.; angles, 1.25 cts. to 1.30 cts.; rivets, 1.75 cts. to 1.85 cts.

Chicago—Beams, 1.35 cts. to 1.50 cts.; channels, 1.35 cts. to 1.50 cts.; tees, 1.40 cts. to 1.50 cts.; angles, 1.30 cts. to 1.35 cts.

Pittsburg—Beams, 1.20 cts. to 1.30 cts.; channels, 1.20 cts. to 1.30 cts.; tees, 1.20 cts. to 1.25 cts.; angles, 1.10 **cts. to 1.15 cts.**

PLATES AND SHEETS—

New York—Universal mill plates, 1.25 cts. to 1.30 cts.; tank, 1.35 cts. to 1.40 cts.; shell, 1.40 cts. to 1.45 cts.; **flange, 1.60 cts. to 1.70 cts.; firebox, 2.25 cts. to 2.50 cts.**

Chicago—Universal mill plates, 1.30 cts. to 1.35 cts.; tank, 1.25 cts. to 1.30 cts.; shell, 1.55 cts. to **1.65 cts.**; flange, 1.30 cts. to 1.50 cts.; firebox, 1.75 cts. to **4.00 cts.; sheets, 2 cts. to 2.05 cts.**

Pittsburg—Universal mill plates, 1.10 cts. to 1.15 cts.; tank, 1.10 cts. to 1.15 cts.; shell, 1.30 cts. to 1.35 cts.; flange, 1.20 cts. to 1.25 cts.; firebox, 1.35 cts. upwards; sheets, 1.90 cts. to 1.95 cts.

MERCHANT STEEL—

Machinery, per lb., 1.60 cts. to 1.70 cts.

Tool, per lb., 5.50 cts. to 7 cts.

IRON—

Pig Iron:

New York—No. 1, $11.25 to $11.50; No. 2, $10.50 to $10.75.

Chicago—No. 1, $11.50 to $12.50; No. 2, $11.00 to $12.00.

Pittsburg—No. 1, $10.50 to $10.75; No. 2, $10.10 to $10.25.

Bar Iron:

New York, common, $1.07½ cts. to 1.10 cts.; refined, 1.15 cts. to 1.20 cts.

Chicago, common, 1.05 cts. to 1.10 cts.; refined, 1.15 cts. to 1.20 cts.

Sheets:

Common American, per lb., 1.45 cts. to 2.55 cts.

Russia, per lb., 10½ cts. to 11 cts.

Mail Delivery Notice.

Special efforts are made to deliver our paper to its readers each week at the earliest possible moment. The largest binding and mailing establishment in New York begins work on Engineering News early each Wednesday evening, and all papers for Boston, Philadelphia and Washington are usually in the New York post-office by midnight; all Brooklyn and New York city papers by 3 o'clock—in ample time for the first delivery Thursday morning. The entire edition, including foreign copies, is in the mail soon after 6 o'clock Thursday morn- If your paper is not received promptly we advise that you make a complaint to your local post-office officials.

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